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Virginia Wildlife

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PUBLICATION OFFICE: Commission of Game and Inland Fisheries, 7 North Second St., Richmond 13, Va.

M. RUPERT CUTLER . . . . . *Editorial Consultant*
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COVER: Noisy and aggressive but a welcome flash of color in a somber, late autumn landscape, the blue jay is America's only bright blue jay. It is found throughout Virginia, and many are year 'round residents. Its habit of destroying other birds' eggs has earned it a bad reputation similar to that of its larger relative, the crow. Our artist: Ed Bierly of Lorton, Va.

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EDITORIAL

Pesticide Pros and Cons -- Part 2

TO read the roll of wildlife for whom the trumpet has sounded up yonder as a result of pesticide applications might take until doomsday. Here is a quick look in the morgue: Some communities have given a brief lease on life to their elm trees through spraying and have lost their robin populations; rodenticides used to control orchard mice have killed foxes, rabbits, quail and fish; Japanese beetles have been temporarily reduced in numbers by aerial spraying—along with the fish and songbirds in the vicinity; mosquitoes—and many valuable forms of life—have been eliminated by DDT from numerous salt marshes; the brush wolf is being exterminated by the "salting" of carcasses with deadly chemical bait for coyote control, and this same bait, eaten by rodents, is indirectly decimating populations of rodent predators—badgers, hawks, owls, eagles—and is being ingested, with fatal results, by grazing wild geese; and the eradication of sage brush in the West by chemical spraying is at the same time effectively eradicating the sage grouse.

Animals may be killed by direct contact with the chemical during its application. They may be forced to leave the area or starve because their food was destroyed by the poison. The concentration of the poison by prey, or food, species and the ingestion by predators of this prey may cause the predator's death. (Worms concentrate DDT, killing the robins which eat them.) Reproductive failure among birds has been blamed on insecticides.

Perhaps half of the many pesticidal chemicals in use today are designated as insecticides and have been developed for their selective toxicity to terrestrial arthropods. Unfortunately, several of our most important marine food species including the lobster, crab, and shrimp are also arthropods. It might be expected, then, that these animals would be particularly vulnerable to the effects of agricultural insecticides. Young shrimp are very sensitive to chemical poisons and, found in the upper reaches of estuaries nearest the source of pollution, are doubly vulnerable. The larval stages of oysters and clams are similarly vulnerable to poisoning, and adult mollusks have the ability to store within their tissues concentrations of chemicals thousands of times greater than the amounts present in the environment, which could render them unsuitable as food.

Two Federal agencies have the major responsibility for enforcement of the regulations concerning sale and use of chemicals used in the production, processing, and marketing of foods in interstate commerce—the Department of Agriculture and the Department of Health, Education, and Welfare. The USDA administers the Federal Insecticide, Fungicide, and Rodenticide Act, and HEW administers the regulations concerning food purity which exist under the Federal Food, Drug, and Cosmetic Act.

The registration and labeling of new pesticides as to their value and effectiveness in controlling specified pests and as to safe methods of application is the job of the Pesticides Regulation Branch, Plant Pest Control Division, Agricultural Research Service, U. S. Department of Agriculture. The establishment of pesticide residue tolerances on foodstuffs is the bailiwick of the Food and Drug Administration of the U. S. Department of Health, Education, and Welfare.

The mass aerial applications of pesticides under Federal auspices have attracted the most attention, but *less than five per cent of the 250 million-plus pounds of pesticides used annually in the U. S. are involved in Federally-sponsored programs,* and improvements in Federal control programs can only affect activities by state agencies and private individuals on private lands indirectly by example. Unscrupulous commercial pesticides applicators and private individuals unaware of the toxicity of the material they apply are causing many of the current problems.

Forty-one states have pesticide registration laws similar to the Federal law administered by the USDA, and in 22 of these states the USDA has made special arrangements with state agriculture departments to use state agricultural inspectors for cooperative law enforcement work. State licenses or permits are required of all pesticide applicators in four states, of all aerial applicators in 16 states, of all commercial applicators in 21 states, and of all commercial aerial applicators in 26 states. Thirty-three states and Puerto Rico have laws relating to the application of pesticides.

Education of the public as to the dangers of pesticides has been neglected by manufacturers and applicators in the promotion of their products, and stricter regulation of pesticide use at state and local levels is called for in many areas.—M.R.C.

Adapted from September 15, 1962, CONSERVATION NEWS, published by the National Wildlife Federation, Washington, D. C.

LETTERS

The Good Word

THE excellent photograph of the chippy on the August issue of VIRGINIA WILDLIFE was of special interest to us, for we can now identify our older son's pet chipmunk as an eastern chippy, just like the one with its home range in Mr. Kesteloo's backyard!

We began a subscription to VIRGINIA WILDLIFE last October, after coming across the August 1961 issue on a visit to the Sky Chalet, Macanie, Virginia, last summer. It was the name of the magazine and the fine cover picture which first attracted our attention. Our family of four, interested in "all outdoors," finds VIRGINIA WILDLIFE an increasingly useful source of helpful and informative material. It is outstanding not only in choice of articles and presentation but also in photographs and drawings.

Mrs. George J. Heimerl
Yorktown, Virginia

I HAVE nothing but praise for both your magazine and the Commission. It has been a real pleasure and experience to hunt and observe Virginia's wildlife for the past three years.

Jerald Stroebele
Marshall, Texas

Success With Bluebirds

I'VE read much about the absence of bluebirds in this part of the United States, and I'd like to share our experience with them. Every spring we've had a pair of bluebirds come and start building a nest in a box we had made for them. About the time they finished the nest, a pair of English sparrows would take over, or the starlings would sit on the perch and stick their heads into the opening. Soon the bluebirds would leave and we'd close the other birds out.

This spring we found an article in a magazine about the bluebirds. The writer said, never use a perch, as they didn't need it and the English sparrow did. So we removed the perch, and this year, for the first time in 10 years, we were happy to see five eggs in the nest; later, five baby birds. When the birds left the nest we cleaned it out, and the next thing we knew a little house wren was building in the box. But the bluebirds returned and took over again. The second brood has just left the nest, and this time we didn't snoop, so we don't know how many were raised this time.

We live on a lot 150 by 600 feet near a woodland. We keep water in a bird bath, and the bluebirds really liked the water. Besides the bluebirds, we've had a mocking bird, house wren, robin, indigo bunting, and several little brown-headed sparrows nest on our lot this year. We feed the winter birds on our patio all winter. By saving all scrap bread, cake and cookies, and the fat from roasts all summer in the freezer, and buying seed for the seed eaters, we keep them well fed all winter.

We enjoy VIRGINIA WILDLIFE very much and keep every copy; started in 1957. Many thanks for a good magazine.

Mr. and Mrs. Ray Stone
Marion, Virginia

Introducing the . . .

Woodcock

By GEORGE McKENNA
Richmond, Virginia

WOODCOCK, or "timberdoodles," are migratory game birds that have much more than a passing acquaintance with the Old Dominion. Some of them nest throughout the state, others winter in our eastern counties, and large numbers of them travel through on their annual migrations. They may be hunted, with the season and bag limit set by Federal regulations. But despite the fact that they are plentiful and offer very good sport, very few Virginia hunters seriously try for them.

The appearance of the woodcock is striking enough to make it easy to recognize. A small, chunky looking bird that seldom weighs much more than half a pound, it has a long, slender bill that accounts for almost one quarter of its total length of about a foot. It also has short legs, and eyes that are set far back on its head. The underparts are brownish orange in color, and the upperparts a mottled greyish brown that blends in perfectly with the dead leaves that usually litter the ground in its covers in the fall. There is no difference in either color or markings between the males and females, but the females are usually slightly larger than the males.

Both the males and the females lead what is probably the most solitary existence of all our game birds. The chicks go out on their own to search for food a few days after they are hatched. From that time on, with the exception of contacts during the mating season when the male puts on a very spectacular moonlit performance at the "singing grounds," each bird lives almost entirely by itself. There are no woodcock coveys, and even the term "flight" which is applied to them is somewhat misleading. They fly alone during their migrations and at night, and a woodcock flight is simply a case of birds that arrive at the same cover at various intervals of time, usually flying into the cover alone, and then leaving it alone at a later date. And even when they are in the same cover at the same time they seldom congregate into flocks as do such other migratory birds as doves or wild geese.

They do gather into large concentrations on the northern edges of large bodies of water that are in the paths of their fall migrations, but even then they still remain fairly well separated, as they rest and feed in preparation for the next leg of their migration.

The most important of their concentration points in the U. S. is at Cape May, New Jersey. Second to Cape May in importance is their concentration area at Cape Charles, Virginia. Other concentration areas of minor importance in the migration pattern, but well worth investigation by local hunters, will be found along the northern shores of all the tidal rivers that empty into the Chesapeake Bay. In addition to these flights that come down the coast, others cross the piedmont belt of Virginia on their way south in the fall, and still others fly down the valleys between the mountain ranges in the western part of the state on their way from the breeding grounds in New York and Pennsylvania to their major wintering area in Louisiana and Alabama.

Because they usually travel alone, and at night, on their migrations, it is possible for several flights to visit a cover and move on again without local hunters even being aware of their presence. Their habit of feeding at night, or early in the morning and late in the afternoon, and remaining hidden through the rest of the day, also makes it easy for them to keep their presence a secret from hunters.

The only way to find woodcock is to visit a cover that looks promising at intervals during the season and to check it carefully for signs that they are there. Earthworms make up a major part of their diet, and rich, moist soil with a plentiful supply of these worms is the first thing the hunter should look for. The soil should be moist enough so the timberdoodles can probe into it easily with their long bills, but not swampy. They like boggy areas around springs, the soft ground along spring branches, and damp, low lying spots in woodland. They also like the protection offered by thick young growths of such hardwoods as maple and poplar, and tight tangles of honeysuckles that are often found in Tidewater Virginia.

Snipe and woodcock seasons in Virginia will open on November 19 when the regular small game season will be open. Snipe season will continue through December 18 and woodcock hunting will end on December 28. Bag limits on snipe will be eight daily and eight in possession. Woodcock hunters will be allowed four per day and eight in possession. Shooting hours on snipes and woodcock are sunrise until sunset.

The signs that they leave in the covers they frequent are easy to recognize. They make small round holes about the size of a lead pencil with their bills as they probe into the soft ground for food, and they also leave the white "splashings" of their droppings on the ground. When a cover is found in which these signs are fresh, the chances are excellent for a good hunt.

A good dog is needed for a successful hunt because the birds freeze to the ground when frightened, and it is necessary almost to step on one to make it flush. Their coloring blends in so well with the dead leaves that it is very difficult to see one even when its location is known. It also makes it difficult to find a cripple or even a dead bird that has been marked down carefully.

A good dog can find the birds for the hunter and also recover those that are shot, but this brings up another problem. Not all bird dogs will retrieve woodcock. There doesn't seem to be any general rule that can be applied. It's just that some will retrieve these birds and some won't, and the only way to find out if a particular dog will retrieve timberdoodles is to take him into a cover and give him a trial.

When the woodcock is pointed it usually sits tight, not flushing until the hunter works in close. Then it comes straight up into the air to a height of anywhere from three to six feet, with its wings whistling shrilly. The whistling noise stops when the bird straightens out its flight, and it moves away silently, usually dodging nimbly around the trees in its path.

In theory, the speed of a woodcock's flight is slow when compared with that of a duck or a dove. But woodcock are seldom found out in the open where shots can be made easily, and in the dense covers they prefer they offer small and elusive targets that can disappear very quickly. They often fly less than 75 yards if missed, however, and then bank sharply to the ground and hold there to give the hunter a second chance.

Because the shooting is likely to be quick, and at ranges of well under 30 yards, a light, fast handling gun with an improved cylinder barrel will give good results in any gauge from 12 to 20. The 28 gauge can also be used for woodcock, but a modified choke barrel is better in this gauge than the improved cylinder. Light loads of number 8 shot will make clean kills in all gauges.

Here Come The
BIOLOGISTS

By GORDON MacQUARRIE

NOW that the airplane is here to stay and no one objects to vaccination against smallpox, it is remembered that yesterday's fishing and hunting man got his infomation about coming seasons from a whiskered old guide who lived a quaint and smoky life back in the cutover. This oracle of the gurgling pipe was an eminent figure of his time. He tested the thickness of muskrat houses and peeled onions in the dark of the moon to forecast weather. In the off seasons when he wasn't guiding, he had a lot of time to think, and he could show you how a hair from a horse's tail would turn into a snake if you put it in a rainbarrel. A few of them are still around, but not too many, and those that persist are often synthetic, self-made characters upholding an old tradition for the sake of local color, and usually sadly in need of dry cleaning.

The genus began disappearing as long as 20 years ago when bright young men with book l'arnin' began getting interested in game and fish. In the heyday of those uncombed fakers, if a hunter wanted a prognosis about an impending duck season, the old fraud would provide him with a prediction based on the bluewing teal nests he encountered in casual rambles between his still and his salt lick.

Today there is no guessing on continental duck production. The game managers, the game biologists, the conservation wardens of all the states and the prairie provinces of Canada just pile up a factual picture of the duck population by going out in the field and counting them.

They will tell you, will these bright young men from the universities, what the average size of the duck clutch was in Manitoba, how the birds made out in the critical drought periods, and during moulting, and when the wildfowl get off for the south. It is these trained men of science who forecast with remarkable accuracy what the duck hunter may expect along the flyways of America.

The changing scene of conservation and wildlife requires trained eyes to prescribe for it. Twenty years ago the word "biologist" was just becoming known in the picture of natural resources conservation, as the public saw it. It was in the 20's and 30's that the era of transition set in, and when the prophetic old-timers who quoted their grampaws began to assume less importance in what is a very scientific and complicated business.

Today no state in the union is without its corps of fish and game biologists, game managers, foresters, forest entomologists, pathologists, and their like. Some state departments are now demanding that the bright young men they hire hold doctor's degrees, no less. If this revolution in management of fish and game—this whole new attitude toward the soil, its landscape and its creatures—must be attributed to one person, it would have to be the great Aldo Leopold, who honored the University of Wisconsin with his civilized mind in the last 20 years of his life.

There is not a man in this field who will deny that the modest Leopold, with the brain of a scientist and the heart of a poet, was the fountainhead, the inventor, the pioneer genius. He is fast becoming a legend. All over the United States today, and in Canada and some foreign lands, you will find Leopold's boys—men who took degrees under him while he was director of the Wisconsin department of wildlife research. Author of hundreds of scientific papers, Leopold was also the author of the more tender and possibly immortal *A Sand County Almanac*, in which he set down the foundations of his thinking.

Photo by Leonard Lee Rue III

"The biologists are not guessing about deer . . . they have battled to reduce deer herds to the point where the animals will not die of malnutrition in hard winters."

I sat beside him one day in 1938 at a conservation meeting of some kind, I forget what. Leopold leaned over and tapped me on the knee—"Get in touch with David Thompson and the others in the Illinois Natural History Survey. They know something new about fish management."

The story that came out of that tip was of the Illinois scientists almost completely upsetting old theories of fish management. They put the fish hatchery in its place, a subordinate place. They stressed management of habitat. They urged more hook-and-line pressure on public waters, less restrictions on sports angling. That basic concept has spread to almost all of the states.

Leopold's influence is greater today than when he lived. His own sons and hundreds of others are going to the business of producing fish and game by methods undreamed of two decades ago. And yet, they often fail. But they expect that, as doctors expect to lose patients. Then again, they often succeed, and quite gloriously.

Wisconsin's deepest lake, Big Green, provides lake trout fishing for sportsmen although until recently, since the 90's when lake trout were introduced in it, that fish had not been able to reproduce itself in Big Green. The youngsters in fishery biology in the Wisconsin Conservation Department figured out what was wrong and solved the problem.

By skin diving, they learned that the lake bottom was muddy, with no rocks. Lake trout eggs fell to the smooth bottom and were being gulped by thousands of mud puppies. So, these bright young men persuaded the county board to dump tons of big rocks into 80 feet of water. Thereafter, the lake trout eggs fell between the rock crevices where the mud puppies could not get at them. Big Green is now reproducing lake trout; there is no further need to plant it with fish brought expensively from a distance.

Reprinted with permission from the November 1960 issue of *Outdoor America*, published by the Izaak Walton League of America.

Gordon MacQuarrie wrote about conservation and outdoor life for the *Milwaukee Journal* for twenty years. He was a pioneer interpreting a growing body of scientific knowledge. When he died in 1956, the Gordon MacQuarrie Foundation was formed to help improve communication between the conservation scientist and the general public. "Here Come the Biologists" is one of his last articles, and in it he did an outstanding job of explaining the need for wildlife research and of a biological basis for good wildlife management practice.

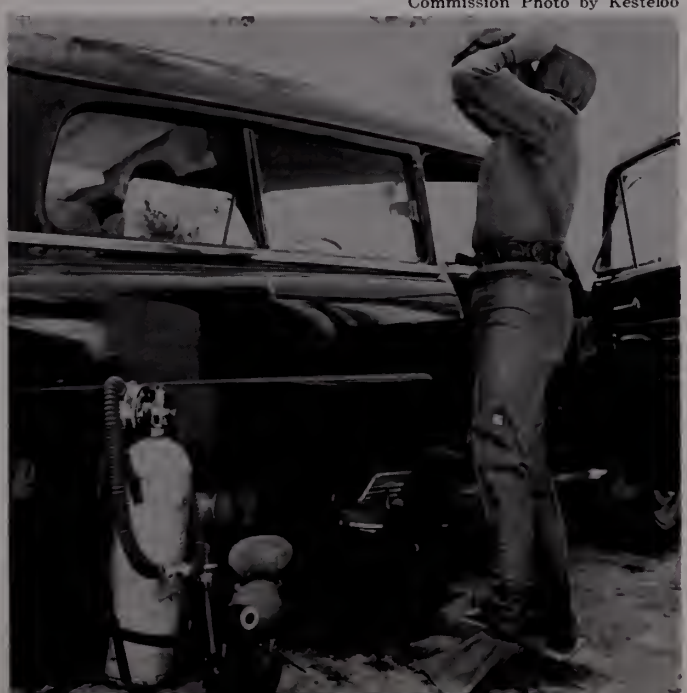
Those same young fishery biologists think ahead, too. Since the sea lamprey, invader from the Atlantic, has practically exterminated the lake trout of Lake Michigan, they guess now that some day, when the lamprey hordes are controlled, they will have to go back to Big Green for lake trout and lake trout eggs for replanting Lake Michigan. It is important to them that the lakers in Big Green are Lake Michigan lake trout, a strain well suited to that lake—and possibly for biological reasons not now known.

They go out of their way, do these young biologists and game managers, to provide good hunting and fishing for sportsmen, and often they wonder if they are being appreciated much; in fact, they are not even well understood, and it is a fact that they are their own poorest public relations agents.

A trained biologist testfying before a state legislature's committee is a sitting duck. They are not trained in debate. They know nothing of the parliamentary tricks. Any apple-knocking assemblyman with an axe to grind can take these youngsters apart without reaching too deeply into his mental resources.

No contests in which these biologists have been engaged have been more bitter, or more fraught with sloppy emotion, than the problem of managing deer in this country, especially the white-tailed deer. Pennsylvania, New York, Michigan, Colorado, Minnesota, to name a few, have gone through the battle to reduce deer herds to the point where the animals can be sustained by their natural food without dying of malnutrition in hard winters. Not all of the states have won that battle. This is because they permit, for political reasons, the untrained and the emotional to have a hand in the management of this "crittur."

Biologists use skin diving equipment to solve fish management problems. This technique has been used by Virginia biologists at Back Bay.
Commission Photo by Kesteloo



The biologists are not guessing about deer; they don't care a fig what grampaw said about them, or how he made the popple trees bend and sway with the ba-r-o-o-m of his .45-90. The biologists have pitted their conclusions, drawn from long study, against the empirical opinions of the whiskered, gurgly pipe school—and in many states they have won, at least for the present. But, the barbershop biologist, lineal descendant of the "old guide," is a tough and resourceful fellow, and he will be around for some time to come, albeit in a diminishing role as the years pass by.

When these young scientists first pressed into the conservation picture there was some resentment from some game wardens. It was natural, and it was expected. The game wardens saw these youngsters becoming important men in local communities to speak before the luncheon clubs, too! That human difficulty seems to have been resolved and the wardens are on the team—some of them more vehement than the trained biologists in sticking up for science against guesswork.

At a meeting of trappers I heard one of the barbershop experts tell a conservation commissioner that a beaver can think. George Knudsen, Wisconsin's beaver study leader, put an end to that foolishness by explaining, with many examples and photographs, that beaver are actually given too much credit. Among other things, he showed how they fell trees so that they cannot possibly be used for food, or dam building.

It took the biologists of the country to teach the muskrat trappers to take the rat crop as it came along, and not permit them to increase beyond the carrying capacity of their habitat, with resultant disease. The biologists get out in the marshes and wade, lifting the tops off muskrat houses in the spring to see how many young are being produced. They can forecast heavy or light rat production from such spring surveys.

The biologists remake trout streams. Hundreds of them have been brought back to good trout production. Wisconsin's one-time famous Prairie river of Marathon county is as good an example as any. A young fishery manager, Ralph Jones, with a crew, worked on the Prairie for five years. He found a river of shallow gravelly rapids, with few holes and too warm summer temperatures. Stream structures were put in to create holes. Cattle were fenced out, with crossings and watering places left for them by intricate fencing which prevented them from trampling down banks. Trees that halt soil erosion were planted by the tens of thousands. The Prairie has come back.

The biologists and managers are putting lands to use so that they fulfill their best potential. Wisconsin's 30,000-acre Horicon marsh is one of scores. Both federal and state men have had a hand in these jobs. Horicon had a long history of land abuse, via expensive attempts to train it and grow crops. It didn't work. Everybody lost money. But, gradually, the state and federal governments acquired the 13-mile long marsh. They reestablished water levels, for water is a chief and simple tool of the managers. In an average year now, 50,000 Canada geese call Horicon home in autumn and spring.

Despite the public scorn they have been subjected to, these new scientists are quiet and orderly fellows. They just keep plugging away. They like their jobs because they feel they are being useful. It is not so much a business with them as a way of life.

(Continued on page 9)

Sun Valley News Bureau Photo
Never handle a weapon so the muzzle is pointing at oneself or other persons.

HUNTERS: PLEASE BE CAREFUL

By JOHN A. BATLEY, JR.
Alexandria, Virginia

LEARNING to be careful when hunting is something which applies not only to the novice; it applies to the expert hunter as well. The novice, to be sure, must learn quickly to apply many of the safe hunting practices that are commonplace for the expert. The expert, on the other hand, must also learn *not to forget* any of the basic fundamentals for hunting safety. In this connection it has been said, "The things one learns after he knows it all are significant milestones of progress."

Contrary to generally accepted opinion, hunting does not begin and end with a weapon in the hands, waiting to shoot game. As a matter of fact it is normally composed of four closely related sequences which are: (1) preparation, such as selecting the weapons and ammunition and deciding where to hunt; (2) transportation to and between hunting areas (The use of private automobiles is the customary method; walking is a rarity.); (3) the actual hunting operation; and (4) returning home—transportation again.

Each of the four sequences associated with a hunting trip includes its own share of hazard. Different, perhaps, in some respects; then again, they can be identical, except for time and place. None are so small that they can be ignored; none so large that they cannot be controlled. All of the related hazards should be known and proper procedures adopted before starting on a hunting trip. Learning *what not to do* from personal misadventures can be costly and sometimes very permanent.

Take, for example, the extreme ranges to which modern rifles and shotguns will project their bullets and shot under reasonably favorable conditions. There is no visual means available to the average hunter to observe the maximum range of bullets or pellets from the time they leave the barrel until they strike. Consequently there is considerable misinformation regarding the actual potential ranges of even the commonly used weapons. It is important, therefore, to have knowledge beforehand that the caliber .22, .30-30 and .30-'06 class of rifles can project their bullets to about 1,400 yards, 3,400 yards, and 5,000 yards respectively. This may seem uninteresting in terms of yards, but when it is known that the ordinary .22 caliber long-rifle bullet can get out to ¾ mile, it certainly should be clear "it is not a harmless toy."

In like manner it may be hard for some hunters to realize that the rifled slugs fired from the more common shotgun gauges could strike a person about 600 yards away; the pellets from a duck-load may travel 300 yards. These extreme ranges, of course, are not the ranges at which shotguns are intended to be effective. They do illustrate, however, that someone can be injured, by a chance strike, even at distances sometimes considered fantastic. It seems more prudent to be guided by the possibility for such an incident rather than its probability for occurrence and to handle the shotguns accordingly.

The beginning of the trip to the hunting grounds usually originates with the family car, station wagon or truck. A camp trailer, a "jeep" or a "scout" is often utilized. Without regard to type of motor vehicle used, see that only *unloaded* weapons are placed inside. In addition, it is well to remember that regardless of the desire to arrive quickly at the hunting area it is always safer to drive carefully.

Each hunting season produces human casualties. Some of these are more serious than others. Some areas and types of hunting have produced relatively larger numbers of casualties than others. None of the past incidents should have occurred—but they did. While the total numbers of hunting accidents is not large, they are in greater number than they should be; this season will not be greatly different in this respect than past seasons.

Causes for most of the accidents are few in number, but they have been reliable over the years. They are repeaters.

To know the causes of the majority of accidents "to" or "by" hunters while hunting or enroute is to be well fortified with a knowledge of *what not to do*. To diligently apply the lessons learned by others from past experiences will materially aid in preventing recurrence of the same type accident in the future. Neglecting to become informed regarding the major basic causes for hunting accidents and failing to put into practice affirmative corrective action can lead only to additional numbers for statistical purposes today, tomorrow or next year, since the law of averages is no respector of age, person or position and will catch up.

Nearly all of the fatalities and injuries related to hunting in years gone by have resulted from one or a combination of the following causes. It is important that these causes be

committed to memory together with a sincere resolve to avoid doing them:

1. Picking up a weapon *and not inspecting* the chamber, magazine and action to be *sure* it is "*empty*."
2. Filling the pockets with shells or cartridges without *careful check* as to proper gauge or caliber.
3. Having *different gauge* shells or *different caliber* cartridges in the hunting coat at the same time. (A mixture of any kind is bad, but 20 gauge with 12-gauge shells can be horrible with a 12-gauge gun.)
4. Carrying or handling a weapon so the muzzle is *pointing* at oneself or other persons.
5. Carry loaded weapons at *full cock* or with the *safe disengaged* before game is sighted or expected momentarily.
6. Using weapons without becoming intimately familiar with their mechanical functioning, *particularly the safe* and its precise direction for "on" and "off."
7. Being under influence of or using *intoxicants* and *narcotics* while *hunting* or *driving* to and from hunting areas.
8. Being ignorant of the potential *maximum range* and *capability* of the weapons being used.
9. Placing *loaded weapons* in a car, buck-board, gun rack, home or camp. (*Be sure* they are *unloaded* first.)
10. Shooting a weapon without first being sure the *bore* is *completely free* of obstructions.
11. *Dragging weapons*, instead of carrying them properly with the triggers partially guarded by hand or arm.
12. Leaving loaded weapons *unattended*, or placing them on ground while resting, eating or engaged in casual conversation.
13. Climbing fences and trying to negotiate dangerous terrain or unstable obstacles, where the footing is precarious, while carrying *a loaded weapon*. (Unload the weapon first.)
14. Shooting at targets not *completely identified* or at sounds and targets *believed* to be game.
15. Shooting *at* or *toward* buildings, *over* and *along* highways and *toward* nearby settled communities.
16. Failing to be alert to the presence *of other hunters* in the nearby vicinity and failing *to make one's presence known* while moving through an area containing numerous other hunters.
17. *Leaving* an assigned game stand before the prescribed time or *deviating* from an established direction of travel and *wandering* aimlessly about when hunting with a group.
18. Shooting at the *surface* of *water*, *rocks* and the like from which the bullet or shot glance off or ricochet.
19. Shooting at game animals and birds when other hunters *are in the line of flight*.
20. Shooting from the hip while turning around when startled by *something* breaking cover in the rear.
21. Wearing (in heavily hunted areas) clothing which prevents quick visual identification as a hunter, or which includes trimmings of a color easily mistaken for game.
22. *Carrying* game across the shoulders in heavily hunted and masking cover *without covering* the carcass with some *unnatural easily recognized color*.
23. Failing to unload the weapon promptly *at the completion* of the hunt and when *leaving* the immediate hunting area preparatory to changing locations.

Commission Photo by Cutler

Game Commission education division personnel Stuart Newman (left) and Jim Kerrick, having learned firearms safety teaching techniques from the National Rifle Association's Stan Mate (right), now teach safety to other Virginians.

24. Starting to clean weapons *before first inspecting* the chamber, magazine and action *to be certain* of the absence of ammunition.
25. *Excessive* and unrestrained celebrating, after a successful hunt, while enroute home over the highways and waterways.

When going on the next hunt, use the foregoing accident causes as a check list against your own habits and practices. Beginning with 100, penalize yourself four points for each one of the 25 undesirable practices you find yourself doing. How do you rate as a hunter? The point is a very simple one; you can't afford to risk doing *any* of the same things that injured or killed someone else.

HERE COME THE BIOLOGISTS

(Continued from page 7)

Always the managers and the biologists are working uphill, against prefixed public notions of how game and fish should be managed. No one goes to a barbershop to have his appendix out, but when it comes to calling the shots on fishing and hunting, everyone is an expert.

The young men know, as they go along, that education is their best ally. They peg away hard at this, with literature, movies and lectures. It is a fact that very often, after the public has been thoroughly briefed, it strings along with the bright young men with the college degrees.

A lot of battles have been won and a great many more remain to be fought. The public is learning. And it is hard, hard work for the young men of scientific fish and game management. They remind me of the story of the boy who acquired a stepfather after his mother's divorce. His own father was permitted to visit the boy at intervals. Once, visiting his offspring, the father asked how things were going.

"Pretty good, dad."

"You get enough to eat, son?"

"Yes, plenty to eat."

"You get some spending money now and then?"

"Yes, dad, plenty of spending money."

"How about recreation?"

"Well, my stepfather takes me for a rowboat ride every morning. No, dad. I don't mind the rowing. And I don't mind my stepfather throwing me overboard every morning. It's fighting my way out of that sack that gets me down."

Deer Hunting In Western Virginia

By GEORGE McKENNA
Richmond, Virginia

DEER hunting in the mountains of western Virginia is more like deer hunting in the northern states than it is like the sport in the South. The season is short, hunting pressure is high, dogs are not allowed, and the deer are usually killed either with high-powered rifles or shotguns loaded with slugs.

The most common method of taking deer here is by driving, just as it is in such northern states as Pennsylvania or New York. These drives are usually put on by large groups of hunters, sometimes numbering 30 or more. Roughly half of the hunters will take up stands at the edge of a good cover and the other half will move in a long line through it, making all the noise they can to chase the deer toward the hunters on stands.

This system is probably the most efficient way there is to harvest the excess animals from the large deer herds of our northwestern counties during the shot time when hunting is allowed. But scrambling over this rough mountain country all day long, yelling at the top of your lungs, can be very hard work. And it is a poor way to get a real trophy buck because the big old granddaddies with the mossy antlers are the deer that learned how to slip away from drives when they were young. They're too smart to let themselves get caught between two noisy lines of hunters.

The best way to get one of these really big bucks is to use your intelligence to outwit him. Spend a week in a good hunting area before the season opens, scouting the ridges for the trails deer use as they move from one feeding ground to another. And spend a lot of time up on the ridges with a good pair of glasses, looking over the countryside until you find a big buck and then try to learn which feeding areas he prefers and where he beds down for the day.

When you have found your big buck, pick a spot on the crest of a ridge near a trail he will probably use and wait for the "hoot and holler" drives to get started on the slopes below. The big bucks are masters of the art of fading back into thin screens of cover that appear too small to hide a chipmunk, and staying in that cover until they can break away from the drive. Then they head up a trail to cross the nearest ridge. The hunter who is waiting patiently up on the top of that ridge is the one who will have the best chance of bringing home a trophy.

If you don't have the time to spend a week in the deer woods before the season opens, you can still give yourself a fair chance of getting a big buck by picking out a well worn trail on the top of a ridge in a section where the deer population is fairly high and the hunting pressure heavy and just wait there throughout the week of the season. Deer use trails unless they are heavily pressed by hunters. These trails are clearly marked paths that are fairly easy to find. And the hunter who waits beside a trail can usually get a shot.

The hunter who is too impatient to wait can track a deer, too, especially if there is snow on the ground, something that is always possible during our deer season in the mountains, but by no means probable. If there is snow, the way to track a deer is to swing in wide half circles, looping out away from his tracks and then coming back in to pick them up and then swinging out again. The reason for doing this is the deer's habit of watching his back trail carefully when he is aware of danger. The hunter who plods steadily along that trail will simply push the deer ahead of him. The hunter who picks up a trail, and works out the probable direction the deer will take and then swings out in wide circles, can get ahead of the deer and take him off guard. But an old buck is a very alert animal as soon as hunters move into his woods. You won't find it easy to catch him off guard.

No matter how you intend to hunt your buck, the best gun to use in the mountains is a high-powered rifle. Forget the stories you have heard about 200-yard and 300-yard shots, however. I have killed about 20 deer with a rifle, in the mountains of Virginia and in other sections where the cover is similar. Only one of those was taken at a range that would have measured over 100 yards with a steel tape, and that was about 110 yards. Most of the shots have been made at ranges of less than 75 yards, in heavy cover. A 200-yard shot is not impossible in our mountains, if made by a hunter on the crest of a ridge. But it is so rare that the hunter who is prepared only for that kind of shooting isn't likely to use his rifle very often.

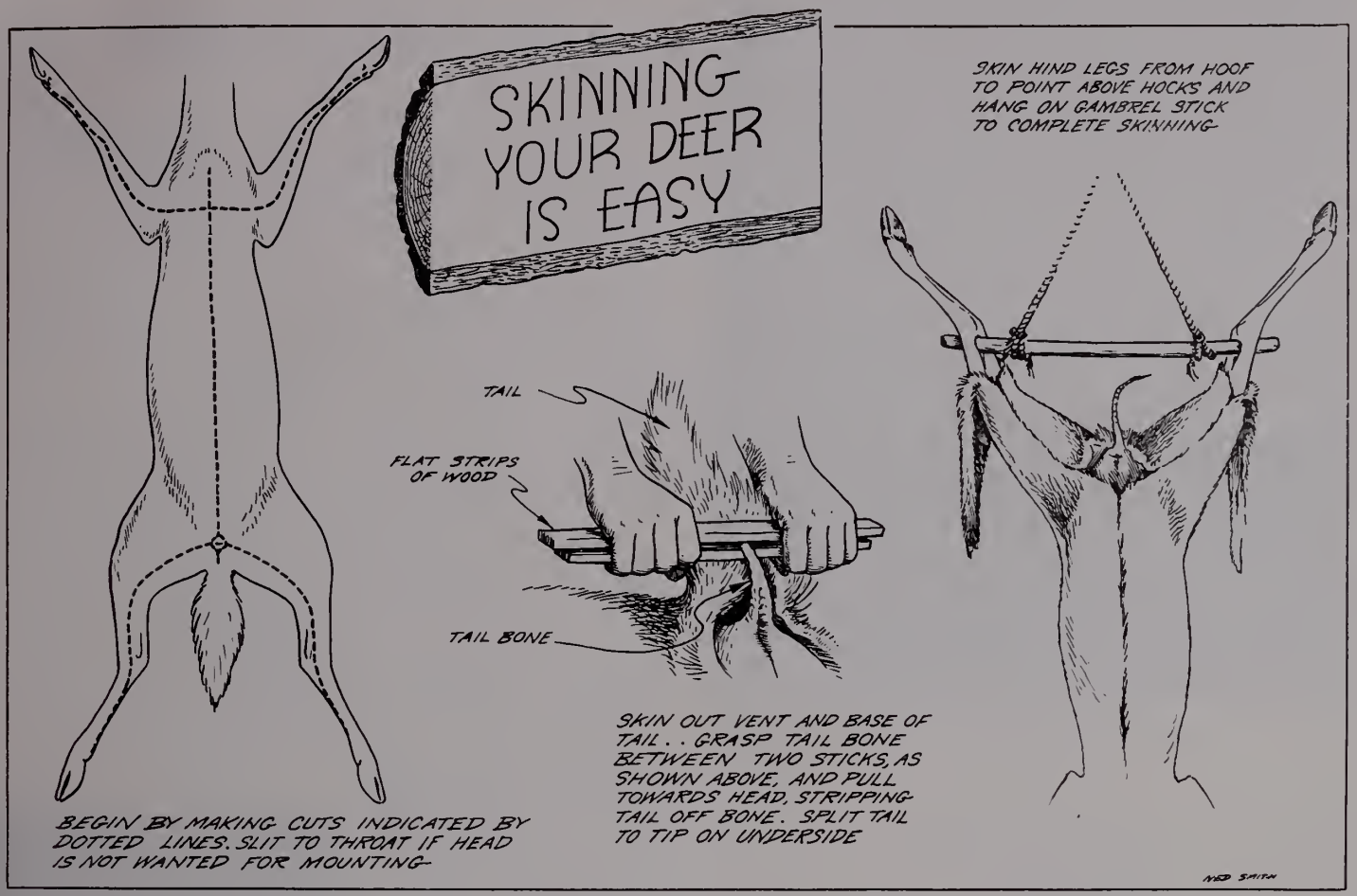
Western Virginia grows big deer, as H. B. McMeans of Washington, D. C., (at right) found out last season.

Commission Photo by Kesteloo

The most important factor to be considered in a rifle for deer hunting here is its ability to send a bullet through heavy brush without being deflected. Such calibers as the .243 and .244 can't be depended upon for this kind of hunting for that reason. The old .30-30 is better because its bullet is heavier and travels more slowly. It gets through brush that will either send a lighter, fast moving bullet off at an angle, or else make it blow up before it reaches the deer.

Such calibers as the .300 Savage and the .308, with 180-grain or heavier bullets are also good, and the .35 Remington and .358 Winchester are better. The .30-06 is used quite a lot, but isn't as effective as the ballistics tables might indicate simply because it will sometimes punch a bullet all the way through a deer. Only the energy actually expended inside an animal actually counts when it comes to knocking him down.

As far as the action of the rifle is concerned, that is a matter of personal choice. If you are accustomed to shooting a bolt-action rifle, stay with that action for deer hunting. If you are familiar with a slide-action shotgun, get a rifle with a similiar action. And if you grew up with the old lever action, stick to that. There are several very good rifles in



all three types of action. And there are good auto loading rifles, too, but they are more likely to jam just at the wrong time than any other type of action, and that fact must be taken into consideration.

Because most shots will be made at ranges of under 100 yards in heavy cover, the best sight combination is probably a simple post front sight and a good receiver sight with the aperture disc removed. The so-called "open sights" that come with most rifles from the factory aren't much good. I always take them off any rifle I buy and throw them away.

If you want to use a scope sight, 2½ power is best for this kind of hunting, and 3 power is the limit for a quick, short range shot at a fast running buck in heavy cover.

Shotgun slugs can be used effectively in the mountains, too, with either improved cylinder-choked barrels or the special slug barrels put out by Remington and Ithaca. Shooting slugs through a full-choked barrel won't injure the gun, but much better accuracy will result from the open chokes. A simple receiver sight attached to the shotgun is a good idea when using slugs, too. They are accurate enough for deer hunting at ranges of up to 60 yards in the 12 gauge, and a receiver sight will let you take advantage of all the accuracy that your gun has.

No matter what kind of a gun you intend to use, the best thing you can do is take it to a range before the season opens and shoot it at least 50 times at targets, and at different ranges of from 30 yards to 100. This way you will know where your bullets or slugs are going when you pull the trigger. Too many hunters either wound or miss deer simply because the bullets they shoot don't go where they are pointing.

The best aiming point on a deer is the opposite shoulder. This will put a bullet through the chest cavity, collapsing the lung if it misses the heart. The heart is low in a deer's chest, so don't shoot too high. And don't shoot too far back. A paunch shot usually results in a severe wound that will kill a deer only after it has traveled for a mile or more and then dropped to the ground to suffer in needless agony.

After you have taken your buck, field dress it right away. Then drag it out of the woods to your car. A piece of clothesline is handy for this, and the deer should be dragged head first so the hair slides easily over the ground. Carrying anything except a very small deer is the hard way to do it. And carrying any kind of a deer is dangerous in an area where other hunters with over-anxious trigger fingers are likely to be in the woods.

Any hunter in the woods during the deer season should wear plenty of bright colors, with the fluorescent reds and yellows and orange all good. These bright colors won't frighten a deer as long as the hunter remains absolutely motionless, and they do offer considerable protection from other hunters.

The northwestern counties have the biggest deer herds, and usually offer the best chances of taking a buck. Augusta, Bath, and Shenandoah counties are all up at the top of the list of number taken every year, and probably offer the best chances of all. Farther south, Craig and Giles counties have smaller herds, but less hunting pressure and some nice bucks. And three counties below them, Grayson, Smyth, and Wythe, have rapidly growing deer herds that have shown tremendous increases in deer kills in recent years. They are definitely on the upgrade as far as deer hunting is concerned, and any one of them is well worth considering as the place for your hunt.

RABBIT HUNTING: Tips For More Sport

Commission Photos by Kesteloo

"There's a lot more to successful rabbit hunting than most people realize."

By H. LEA LAWRENCE
Johnson City, Tennessee

HUNTING the cottontail, America's favorite small game animal, sometimes seems to be the simplest sport of all.

In fact, there's nothing to it—so it appears. Just pick out a likely spot, walk through the cover and flush out a bunny, and BLAM! Easy, but often the old one-two-three punch doesn't produce. And only when this happens does the average rabbit hunter ever stop to consider that there might be more to the sport than meets the eye. Usually—and unfortunately—most hunters let the thought die right then and there.

Actually, there's a lot more to successful rabbit hunting than most people realize. By learning some of the tricks practiced by experts, hunters can find a lot more challenge in seeking the little speedsters, and the game bag is likely to take on a lot more weight as the day progresses.

Cover, the first thing a hunter considers, can seem pretty easy to locate. However, this can be very misleading. Rabbits, like all other wild animals, vary their habitat not only seasonally, but also in regard to weather conditions. Thus what may be an ideal cover one day can turn out to be as barren as a desert the next.

Heavy cover, for instance, such as briar patches, fence rows or brush piles is used by rabbits during bad weather conditions more frequently than, say, sedge grass fields and open areas. Cold, bright days bring bunnies out into open fields where they can bed down and absorb as much of the sun's heat as possible. I have found them in grassy pastures at such times, or open hillsides. A feeding rabbit, on the other hand, is going to be moving about in spots where grain, tender grasses or other food items are found. Windy, cloudy, frigid weather may find cottontails bedded down in wooded regions—perhaps the most often overlooked hiding place for them.

Stalking rabbits is another important aspect of hunting them that is usually poorly executed. Rabbits are nervous creatures, and the proper method of stalking them can turn this knowledge into a big advantage for hunters.

Despite this nervous tendency on the rabbit's part, which might lead one to believe they will bolt anytime one approaches them, lots of rabbits are passed by hunters in the field. Moving rapidly or steadily through cover leaves a lot of animals undiscovered. These "overlooked rabbits" can be added to the bag if the right approach is used.

The "stop and go" method is ideal in this case, especially in thick cover where rabbits tend to sit tight. Take a few slow steps through the cover, then stop completely and remain in one spot for several seconds. Repeat this all the way through the field, starting and stopping alternately. The noise of your movement will put sitting rabbits on edge—sometimes flushing them effectively—but the stop seems to totally unnerve them. If they have gathered the composure to sit still as you move past, stopping almost always changes their mind. Many times over half the rabbits I have flushed during a hunt bolted while I was standing perfectly still.

Keeping an eye out for sitting rabbits, when the cover permits, is another good trick that will produce. It isn't an easy matter to see them, but practice will improve your average. And once a rabbit is sighted before it runs, the hunter has the advantage of being able to move the animal out in any direction he chooses, affording a better and more open shot.

"Rabbits are nervous creatures."

Some people are more observant than others, and consequently are able to spot sitting rabbits more easily. I have known some hunters who were so good at this as to be able to pick them out even in relatively heavy cover, something I find nearly impossible. But even the average hunter can see a great many of them if he will keep his eyes on the area ahead as he moves slowly through cover.

A final hint, and one which has been productive for me for a good many years, is to take advantage of the spots of cover most frequently overlooked by other hunters. I have developed a habit of looking in unlikely places for rabbits, and it has paid great dividends. It takes mighty little cover to conceal a rabbit, and clumps of grass at the base of trees or telephone poles, bits of cover around rocks or non-cultivated rough spots in fields make ideal "out-of-the-way" bunny hideouts. You can often pick up a couple extra rabbits in a day's hunt by visiting such places.

Putting all these things to work for you in the field can make a big difference in your hunting success—and your hunting pleasure. For in rabbit hunting, like in everything else, a little know-how can go a long way!

VIRGINIA WILDLIFE

☆ ☆ ☆ ☆

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

1962-63 VIRGINIA MIGRATORY GAME BIRD SEASONS AND LIMITS

Species	Season Dates	Daily Bag Limit	Possession Limit	Shooting Hours
DUCKS*	Nov. 10 – Dec. 29	2 plus 2 scaup	4 plus 4 scaup**	Sunrise until sunset***
GEESE	Nov. 10 – Jan. 8	2 Canada geese	4 Canada geese	Sunrise until sunset***
COOT	Nov. 10 – Dec. 29	6	6	Sunrise until sunset***
BRANT	Nov. 10 – Jan. 8	6	6	Sunrise until sunset***
AMERICAN or REDBREASTED MERGANSERS	Nov. 10 – Dec. 29	5 combined	10 combined	Sunrise until sunset***
CLAPPER RAILS and GALLINULES	Sept. 13 – Nov. 21	15 combined	30 combined	Sunrise until sunset
SORA RAILS	Sept. 13 – Nov. 21	25	25	Sunrise until sunset
DOVES	Sept. 15 – Nov. 3 Dec. 17 – Jan. 5	12	24	Noon until sunset
WOODCOCK	Nov. 19 – Dec. 28	4	8	Sunrise until sunset
JACKSNIPE	Nov. 19 – Dec. 18	8	8	Sunrise until sunset

*Except canvasbacks and redheads on which there is no open season

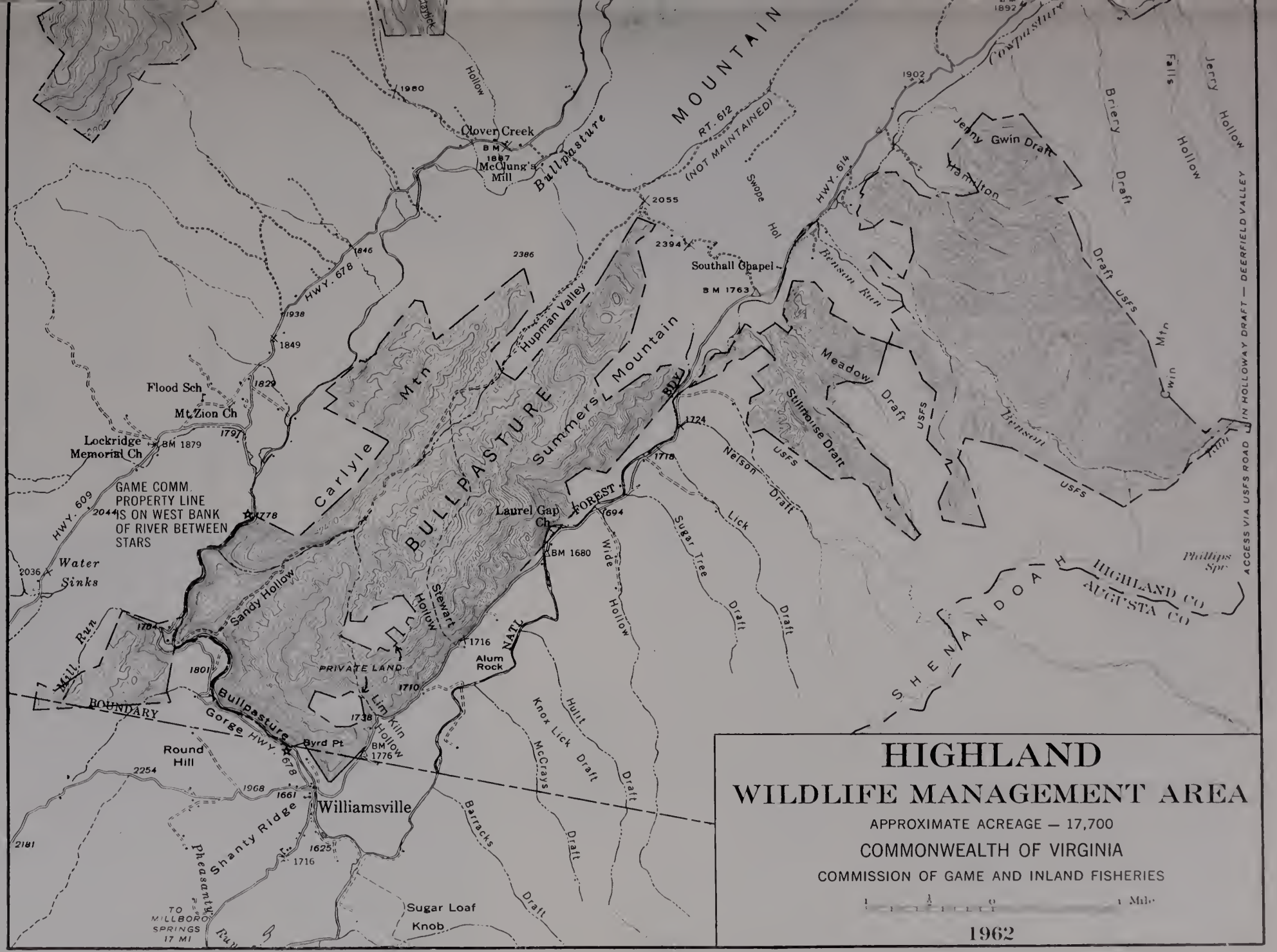
**Not to include more than 2 wood ducks or 1 hooded merganser

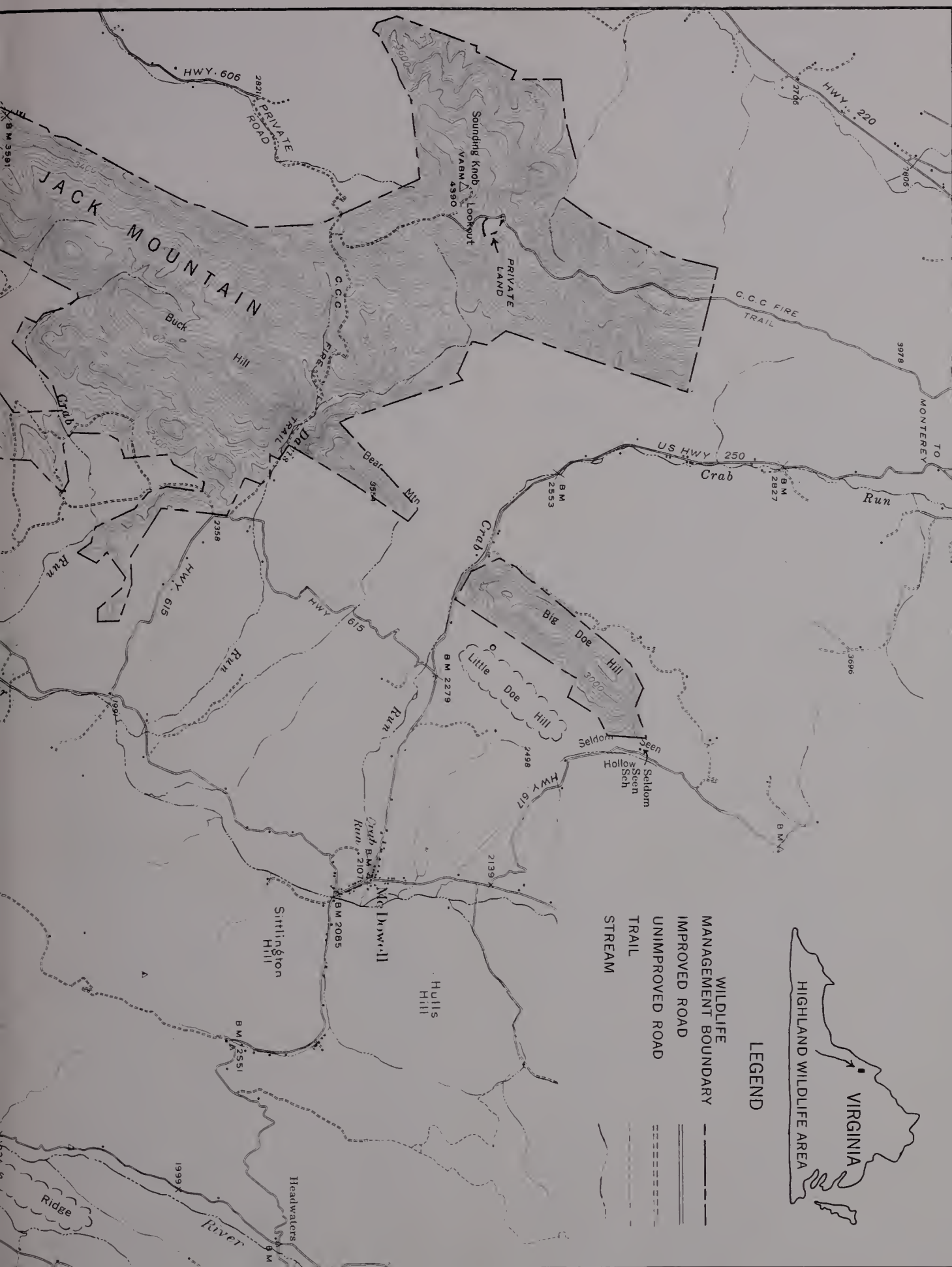
***Noon until sunset on opening day—no shooting after 4:00 P.M. during entire season on Back Bay

LAW CHANGES RESTRICT BAG AND CREEL LIMITS IN THE FIELD. Recent changes in the game and fish laws make it illegal for a hunter to have in his possession more than his daily bag or creel limit of game or fish while in the field, forest or stream, according to Game Commission law enforcement personnel. This makes it illegal for one sportsman to carry another's bag or creel if the combined total exceeds the daily bag or creel limit for the sportsman carrying them. The old statement "half of these belong to my buddy over there" will no longer be a legal excuse.

To possess while in the field would mean having game or fish on one's person or in his vehicle while not on a public highway. Provision is made, however, for one person to give his legally taken game or fish to another. Such game or fish must be legally identifed with the name, address, and hunting or fishing license number of the person who killed or caught it, the number and species included, and the date taken. This information must be attached to the game itself or to the package in which it is contained. A properly applied big game tag constitutes legal identification in the case of big game animals.

The new wording of the law also prohibits a hunter or fisherman from having his entire possession limit with him while in the field in cases where the possession limit is more than the daily bag limit. The possession limit is applicable to game killed on more than one day which is being transported or stored. A hunter or fisherman should have no reason for having game or fish taken the previous day with him in the field. In Virginia the possession limit for small game (except migratory birds) and fish is twice the daily limit. In the case of migratory birds, the possession limit is designated for each species and is listed in the regulations covering migratory birds.


HIGHLAND
WILDLIFE MANAGEMENT AREA
APPROXIMATE ACREAGE — 17,700
COMMONWEALTH OF VIRGINIA
COMMISSION OF GAME AND INLAND FISHERIES
1 Mile
1962
BULLPASTURE MOUNTAIN
Summers Mountain
Carlyle Mtn
Hupman Valley
Bullpasture
Clover Creek
McClung's Mill
RT. 612 (NOT MAINTAINED)
HWY. 614
HWY. 678
HWY. 609
Southall Chapel
Laurel Gap Ch
Flood Sch
Mt Zion Ch
Lockridge Memorial Ch
GAME COMM. PROPERTY LINE IS ON WEST BANK OF RIVER BETWEEN STARS
Water Sinks
Sandy Hollow
Stewart Hollow
Alum Rock
PRIVATE LAND
Lim Kiln Hollow
Byrd Pt
Bullpasture Gorge
Round Hill
Williamsville
Shanty Ridge
Pheasanty Run
TO MILLBORO SPRINGS 17 MI
Sugar Loaf Knob
Barracks Draft
McCrays Draft
Knox Lick Draft
Hulit Draft
Wide Hollow
Sugar Tree Draft
Lick Draft
Nelson Draft
Stillhouse Draft
Meadow Draft
Benson Run
Benson
Jenny Gwin Draft
Hamilton
Briery Draft
Falls Hollow
Jerry Hollow
Cowpasture
Swope Hol
Phillips Spr
SHENANDOAH
HIGHLAND CO
AUGUSTA CO
ACCESS VIA USFS ROAD IN HOLLOWAY DRAFT — DEERFIELD VALLEY
Mill Run
BOUNDARY
NATL
FOREST
BDY
USFS


JACK MOUNTAIN
Buck Hill
Crab Run
HWY. 606
PRIVATE ROAD
Sounding Knob Lookout
VABM 4390
PRIVATE LAND
C.C.C. FIRE TRAIL
HWY. 220
TO MONTEREY
US HWY 250
Crab Run
Bear Mtn
HWY 615
Big Doe Hill
Little Doe Hill
Seldom Seen
Hollow Seen Sch
HWY 617
McDowell
Sittlington Hill
Hulls Hill
Headwaters
Ridge
River
LEGEND
WILDLIFE MANAGEMENT BOUNDARY
IMPROVED ROAD
UNIMPROVED ROAD
TRAIL
STREAM
VIRGINIA
HIGHLAND WILDLIFE AREA

Highland Wildlife Management Area

By JAMES W. ENGLE, JR.
District Game Biologist
Swoope, Virginia

THE Highland Wildlife Management Area is made up of five separate tracts of land in Highland County, which together total 17,700 acres. The area was purchased by the Commission of Game and Inland Fisheries in September, 1962.

The Bullpasture Mountain tract, the southernmost part of the area, includes 4,820 acres and is located just north of Williamsville. Proceeding north from Williamsville on route 614, which follows the Cowpasture River, the area property line adjoins the public road for several miles. Area boundaries are marked with yellow paint. There are very few trails or old roads leading from route 614 up to the rolling top of Bullpasture Mountain. Access from this side is easy, however, for those willing to tackle the trek up the mountainside from the public road.

Route 678, leading north from Williamsville, generally follows the southwestern boundary of the area for several miles as it winds its way along the Bullpasture River. The Game Commission's property line follows the low-water mark on the western bank of the Bullpasture from the head of Bullpasture Gorge downstream to a point in Bath County. Thus, although portions of the west bank are in private ownership, the river and the east bank belong to the commission along this stretch. The river is heavily stocked with brook, rainbow, and brown trout by the commission.

Approximately two miles from Williamsville on route 678 is a point known as the low-water bridge, picnic grounds, camp grounds, gravel pile, or blue spring. Here a road, which is suitable for travel by jeeps only, crosses the river and winds to the top of Bullpasture Mountain through Sandy Hollow. A network of old logging roads covers the top of the mountain. The Sandy Hollow road ties in with another, which meanders down the mountain top through Hupman Valley and connects with route 612, an unmaintained road passable by jeep only, which goes down into Clover Creek (also known as McClung's Mill). From route 612 to the commission property line, this road passes through Barnes Lumber Company property. A permit, which may be obtained at their mill at McDowell, Virginia, is necessary before hunting or traveling on this property. The commission hopes someday to work out an access agreement on this connecting road.

Bullpasture Mountain was logged about 1956, resulting in abundant deer food. Wild turkeys are present in good numbers, and grouse hunting is considered good. Occasional black bear have been seen in the area. Modern game management practices have been instituted and the game supply should improve.

North and east of Bullpasture Mountain are the two tracts which comprise the Benson Run area. Together these include 3,898 acres. The land separating the tracts and that along the east boundary belongs to the U. S. Forest Service. The best access to the Benson Run area is via U. S. Forest Service development road 173, which comes in from Deerfield Valley in Augusta County off route 629. Two access points exist from route 614, but these remain to be developed. Benson Run is good bear habitat and its deer herd is near the maximum level the range will support. Several flocks of turkeys are found in the lower part of the drainage. Hunters are usually sparse and game plentiful in this section.

North and west of the two preceding areas lies the Jack Mountain tract of 8,502 acres, the largest block of land in the Highland Wildlife Management Area. Best access to the Jack Mountain section is via a CCC fire trail leading to the sounding knob lookout maintained by the Virginia Division of Forestry. This fire trail may be reached from U. S. Highway 250 on top of Jack Mountain (outside the area) or from route 615 at Davis Run. Jack Mountain and Davis Run are perhaps best known for grouse and turkey hunting.

The most northern part of the Highland Wildlife Management Area is the 561-acre Crab Run tract. There is no access to this section at present except across private land. This area lies north of U. S. 250 and at the closest point the property line is 290 feet from this highway. The next closest access point is 670 feet behind the Seldom Seen School House on the northern end along highway 217. The terrain is rough and rocky, and game populations are relatively low.

VIRGINIA'S PUBLIC HUNTING AREAS

The Virginia Commission of Game and Inland Fisheries, in cooperation with state, federal and private agencies, manages 1,866,346 acres of public hunting lands for the benefit of Virginia sportsmen. This totals over six acres for each licensed hunter in the state. These lands include opportunities for hunting deer, ducks, geese, bear, turkey, grouse, quail, rabbits, raccoons, squirrels, and rails. They stretch from the Eastern Shore to the most remote mountain regions.

There is no daily charge for hunting on any of the areas listed in this digest. A National Forest Stamp ($1) is required when hunting on national forest lands and a State Forest Stamp ($1) is required to hunt on state forests. These stamps are good for the entire hunting season. Money received from the sale of these stamps is used for wildlife habitat improvement on these areas.

To accommodate hunters, camping is permitted on most Commission-owned wildlife management areas. Campsites are clearly marked, and a special permit from the area manager is required to camp on these areas.

In addition to the public hunting lands controlled by state and federal agencies, a considerable acreage is open to public hunting under cooperative agreements between the Game Commission and the private landowner. In general, the Commission, under these agreements, places the areas under regular game warden patrol, thereby reducing trespass and fire danger, and also carries out game habitat improvements and fish management work where needed. In some instances firebreaks are bulldozed and planted, erosion prevention measures are undertaken, game and fish surveys are conducted, and boundaries are posted.

Wildlife Management Area Information

Wildlife Management Areas are open for public hunting at all times during legal shooting hours and seasons for the species being hunted except as noted under "Special Regulations."

Hunters use public hunting areas at their own risk; the Game Commission assumes no liability for bodily injury or property damages incurred while on Commission lands.

Hunting while under the influence of alcohol or drugs is strictly prohibited on wildlife management areas as is the intake of these substances while on the premises.

Clearly marked refuge sections are set up on some wildlife management areas.

Some roads are closed to vehicular traffic on wildlife management areas and are so posted.

Hunters are expected to maintain neat and orderly campsites and to refrain from littering the grounds while afield.

Fires are permitted at designated campsites only and a permit must be obtained from the area managers.

Safety zones are set up where hunting or shooting is prohibited to protect Commission buildings and developments on the areas.

Guns are to be unloaded when being transported in vehicles within area boundaries or when stored at campsites within the area.

Special Regulations Code (See Chart)

1. Part of area serves as refuge. Other section may be hunted on Tuesdays, Thursdays, Saturdays. No permanent blinds permitted.
2. Part of area serves as refuge. No permanent blinds permitted.
3. Opened to bow hunting only, during early archery season.
4. Camping permitted on designated areas.
5. One-dollar National Forest Stamp required to hunt-fish-trap.
6. One-dollar State Forest Stamp required to hunt.
7. Obtain free daily permit on Post.
8. Write commanding officer on or after October 1 for permission to hunt during first two weeks of season, after which time daily permits may be obtained on the Post.
9. Obtain free season permit from Chesapeake Corporation at West Point or Lynchburg.
10. Closed to deer, bear and turkey hunting.

NOTE—The letters and number codes for locating the areas listed are for use on the official State Highway Map available from the Virginia Department of Highways.

Wildlife Management Area	State Highway Map Area	Ownership	Acreage	Sp. Regulations	Camping	Deer	Bear	Turkey	Grouse	Quail	Rabbit	Raccoon	Squirrel	Ducks & Geese	Rails	Map Available	Location
Gathright	I-5	Comm.	18,500		4	x	x		x	x	x	x	x			x	15 mi. north of Covington on Jackson River
Goshen	J-5	Comm.	15,594		4	x	x	x	x		x	x	x			x	3 mi. south of Goshen on Rt. #39
Havens	H-6	Comm.	6,200						x				x				3 mi. northwest of Salem on Ft. Lewis Mtn.
Wunder	K-3	Comm.	1,335		4	x		x	x		x	x	x			x	7 mi. northwest of Broadway on Sours Run
Little North Mtn.	J-4	Comm.	4,726		4	x	x	x	x			x	x				3 mi. north of Craigsville on Rt. #42
Saxis	Q-5	Comm.	4,630	1										x			Adjoins town of Saxis
Mockhorn Island	Q-6	Comm.	9,110	2										x	x		Accessible by boat from Oyster
Hog Island	O-6	Comm.	2,100	3	4	x							x				6 mi. northeast of Bacons Castle
Game Farm Marsh	N-6	Comm.	568											x			near Va. Division of Forestry tree nursery
George Washington Forest		U.S.F.S.	957,000	5	x	x	x	x	x	x	x	x	x			x	north of James River in western Virginia
Jefferson Forest		U.S.F.S.	543,000	5	x	x	x	x	x	x	x	x	x			x	south of James River in southwest Virginia
Philpott Reservoir	H-7	Corps of Engineers	4,750		x	x				x	x	x	x				near town of Bassett
Kerr Reservoir	K-7	Cor. of Eng.	38,000		x	x		x	x	x	x	x	x				near Clarksville
Lee Forest	K-5	U.S.F.S.	2,500		x			x		x	x	x					3 mi. south of Buckingham
Cumberland For.	L-6	Va. Div. of Forestry	15,105	6	x	x		x		x	x	x	x			x	north of Rt. #60 near Cumberland
Appomattox-Buckingham For.	K-6	Va. Div. of Forestry	18,534	6	x	x		x		x	x	x	x			x	south of Rt. #24 near intersection Rt. #636
Prince Edward Forest	L-6	Va. Div. of Forestry	6,365	6	x	x		x		x	x	x	x				north of Rt. #360 near Green Bay
Camp Pickett	M-6	U.S. 2nd Army	47,000	7		x		x		x	x	x	x				east of Blackstone on Rt. #40
A. P. Hill	N-4	U.S. 2nd Army	77,000	8		x		x		x	x	x	x				near Bowling Green on Rt. #301
Seward Forest	M-7	U. of Va.	3,600			x		x		x	x	x	x				southern Brunswick County
Union-Bag Camp	M-7	Union-Bag Camp Co.	15,000			x		x		x	x	x	x				composed of small tracts near Edgerton and south of Rt. #58
Lehigh-Portland	J-4	Lehigh-P. Cement Co.	6,100			x	x	x	x			x	x				near Craigsville
Fairystone Farms	H-7	Fairystone Farms	6,000							x	x	x	x				near Philpott Reservoir
Lester	H-7	Lester Lumber Co.	3,800							x	x	x	x				adjacent to Martinsville reservoir
Ward-Rue	L-4	Ward-Rue Lumber Co.	8,400			x	x	x	x			x	x				near Criglersville
Berry-Aylor	L-4	Berry-Aylor Lumber Co.	500			x	x	x	x			x	x				near Criglersville
Smith Mtn.	J-6	Burruss Lumber Co.	2,684					x		x	x	x	x				9 mi. southwest of Leesville on Roanoke River
Chesapeake #1	O-6	Chesapeake Corp.	3,000	9		x				x	x	x	x				near Bacons Castle on Rt. #617
Chesapeake #2	J-6	Chesapeake Corp.	2,645	9				x		x	x	x	x				south of Leesville on Rt. #631
Hidden Valley	D-7	Comm.	6,400						x			x	x				12 mi. northwest of Abingdon on Brumley Mtn.
Clinch Mtn.	E-6	Comm.	18,500						x			x	x				6 mi. north Saltville on Flat Top Mtn. in Russell, Smyth & Tazewell Counties
Highland Co.	I-4	Comm.	17,700			x	x	x	x			x	x			x	5 mi. southeast of Monterey on Shenandoah, Bullpasture and Jack Mtns.

Essentials for reloading shotgun shells are not difficult to come by. Above, clockwise: shotshell reloading tool, 25-pound bag of shot, shotgun powder, battery cup primers, over powder "nitro" wads, fiber filler wads, and empty shells.

After initial inspection of the empty cases for cracks, dents and tears, the mouth should be ironed out to prepare it for future operations. Cases will last longer when ironed before loading although this operation is not essential.

Resizing and decapping are carried out with c downward sweep of the operating handle. Unl rifle and pistol cases, no lubrication is necess because very little friction is encountered. Try to burn yourself on the iron.

Shotshell Reloading

Text and Photos by RONALD F. MARION
Richmond, Virginia

ASIDE from the obvious advantage of saving about two-thirds on your shotshell expenditures, there are other reasons to "roll your own." As any hand loader will tell you, there is nothing like dropping a big buck with a cartridge that is the product of much experimenting and tinkering. Such latitude of loading is not available to the shotshell reloader, however. There are specific powders made for all of the different loads. Unlike cartridge reloading, it is dangerous to experiment with powder and shot combinations that are not recommended mates.

Velocities of shot charges do not vary more than 300 feet per second between the standard and the high power loads. Some three-inch magnum loads are even known to have somewhat less velocity than their high-power counterparts. It is the shot charge weight that is "magnum," not its velocity.

The single nitro wad is pushed into the shell with sufficient force to compress the powder (for even powder burning). Compression pressures up to 110 pounds are necessary for some powders. Pressure is indicated on the spring loaded drop tube.

With this particular 20-gauge load, the wad column consists of two .135" nitro wads and one 3/8" waxed fiber wad (for a high brass Remington shell). The same load in a Western shell takes one .135" over powder wad and two 3/8" filler wads.

The wads are inserted above the shell in the w guide. Thin copper "fingers" hold the wads place. The operating handle is raised while the same time the shell is held in place. T drives the wad combination into the shell.

e primers designed for the case being reloaded; mers are not interchangeable. Battery cup mer is placed in recess provided for it and se head is pressed down slowly but firmly to seat it well.

The sized, primed case is held under the powder and shot drop tube and the metering bar is pushed to the left. This allows a predetermined amount of powder to enter the case. In this reloader the powder is measured by volume.

After charging, the over powder or nitro wad is inserted in the case mouth. The thickness of the wad has to be determined by trial and error. Not less than three wads should be used in a case. Leave just enough case for a good crimp.

But, be it a high-flying honker that hit the deck or a tumbling ball of feathers that was a dove that comes skidding to your feet, the satisfaction is there. You put together the winning combination that "cut the mustard."

As in metallics, the most expensive component of ammunitions is generally left on the ground. A lot of care and thought and expense went into that little paper tube. It is virtually waterproof. It is constructed of the highest grade paper. The brass, both inside and out, is of the highest quality and workmanship. It's no wonder that fewer and fewer shooters are leaving them where they lay.

Since there are as many different loading tools as there are manufacturers of them, the accompanying illustrations are to be used only as a guide. The steps are the same; each separate job has to be done. Some tools do the same thing in a slightly different manner. But the sequence should help the uninitiated to better understand what has become a very popular and interesting activity.

Usually unnecessary on a shell the first time it is reloaded, final sealing is desirable after the case mouth gets soft from use. A good sealing with *hot* wax will stiffen the paper walls enough for two or three more loadings.

ith the wad column fully seated the case is ain moved under the charging tube and the etering bar is pushed from left to right, dropng one once of shot into the case. The shot should be 1/4" from lip of the case.

The crimping die is then placed over the case. Its function is mainly to keep the case from bulging under the pressure of the crimping ram. Bulging could cause a malfunction in a semi-automatic gun or difficult loading in a double.

The shell, housed in the crimping die, is placed in the fifth and last position on the tool, the handle is brought down and a star crimp is formed. Some older shells used a rolled crimp and a thin over-powder wad.

Wildlife Conservation Unit 2, Birds and Game Bird Management

Study 2A - -

Game Bird Indentification (Resident Species)

By DOROTHY E. ALLEN
Education Officer

OUR objectives:

1. To learn to recognize on sight Virginia's resident game birds.
2. To learn of the activities of these game birds.

RUFFED GROUSE—The ruffed grouse is known by many different names: pheasant, partridge, tippet, red-tail, bad bird, and kettledrummer. The Indians picturesquely referred to it as "carpenter bird," or "Mother Nature's drummer" because it pounded on a log. The word "grouse" seems to have been derived from French terms meaning spotted bird. The term ruffed refers to the collar on the bird's neck. He is thought of by many as king of game birds.

The ruffed grouse is a sturdy, compact bird about 18 inches long with an average weight in Virginia of 24 ounces (the size of a bantam hen) and handsomely dressed in feathers of mottled brown. Tufts of shiny iridescent black feathers on its neck form a puffy frill about his head, which is adorned by a cocky crest of feathers. The stiff feathers of its magnificent fan-shaped tail may be grey or chestnut and crossed with a wide black band near its tip.

Its plumage offers the ultimate in protective coloration. Its stout wings, powered by tremendous breast muscles, are perfectly designed for taking off at full throttle and maneuvering swiftly through thick underbrush. Its strongly nailed feet are excellent for scratching among the fallen leaves for food. In winter its feet are transformed into snowshoes by the growth of a horny fringe on the toes (see illustration). They do not have spurs as do pheasants and cock turkeys. The grouse's winter plumage is unbelievably dense, providing excellent insulation against the cold: in fact, in frigid weather these birds think nothing of flying headlong into a snowdrift to spend the night. The grouse has excellent eyesight.

The heath hen, which became extinct in 1931, was a member of the grouse family.

(See Activity 1 for the grouse's courtship antics.)

BOBWHITE (QUAIL)—Of all game birds, the bobwhite may be the most popular and most familiar. Bobwhite! Bobwhite! You have often heard him cheerfully telling you his name and have probably seen him many times. He is notifying other cock quail that this particular piece of real estate is his and warning them to stay out.

This fat, perky bird, speckled with white and freckled with rusty red, has a distinctive head pattern of dazzling whiteness. A brownish-black strip on the head gives him a dark collar surrounding his white throat. His expressive head crest is raised and lowered with each change in attitude. Bobwhite has a dark grayish tail. This quail averages 10 inches in length, seven ounces in weight.

Bobwhite could he called "birds of a feather," for all winter long they live together amicably . . . eating, sleeping, traveling as a covey. The covey roosts in a unique circular formation on the ground, tails together and heads outward, radiating from the center like the spokes of a wheel.

In Virginia as early in the spring as February, the males suddenly begin showing off for their females. Bowing low, elevating their fanned-out tails and spreading their drooping wings, they scamper and rush around any female that looks impressed. When the male has attracted her attention, he will stamp his feet in a lordly fashion and stretch very erect. Competition among males for attention results in fights.

By May the covey splits up and individuals pair off, interested only in building nests and rearing young. Bobwhites are devoted parents. Both parents construct the nest, share the responsibility of the brood, and if one dies or is killed, the other takes charge of rearing the young.

The cock also gets credit for helping in incubation duties, hut it seems he *prefers* to perch on a nearby fence post and whistle. For during the nesting season, the familiar "bobwhite" is most frequently heard. The hen also gives a "bobwhite" call. When a quail family travels from one spot to another, it looks like a parade. The mother leads off with the young in a single line following her, and papa hrings up the rear.

Bohwhites have interesting and amusing ways. They love to dust, and in dry weather often resort to favorite dusting spots in dirt roads, along field edges, or other places where dry soil is exposed. If flushed when taking a dust bath, they appear to explode from the ground in a puff of smoke!

WILD TURKEY—Benjamin Franklin said the wild turkey should have heen chosen as our national bird, because he is so regal and typically American. From fossil evidence found in rocks and caves, we know that the wild turkey roamed the primeval forests of America many thousands of years before Columbus made his journey to the New World.

The hronze-hued wild turkey, weighing around 20 pounds, is the largest of our upland game birds. Generally speaking, it is a slender-bodied, long-legged, long-necked, and long-tailed bird with a tiny head mounted on a snake-like neck. Tapering from the middle to almost nothing at the end of the tail and tip of the bill, the wild turkey is an

Attention: Teacher

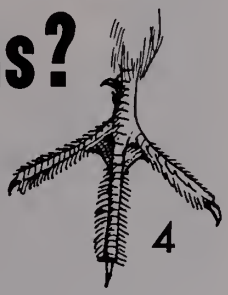
The Virginia Commission of Game and Inland Fisheries defines this state's non-migratory game birds as grouse, bobwhite quail, pheasant, and wild turkey. Game birds represent an important part of Virginia's wildlife. Nearly every section of the Commonwealth supports one or more species. The birds discussed in this study are year-around residents within the state. Not only do hunters enjoy the sport provided by these birds, but other people derive pleasure from simply observing the birds. In this study we will learn to identify these birds and learn a little about their activities.

Can You Name These Birds?

1

2

3



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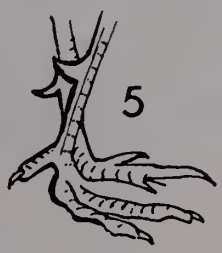

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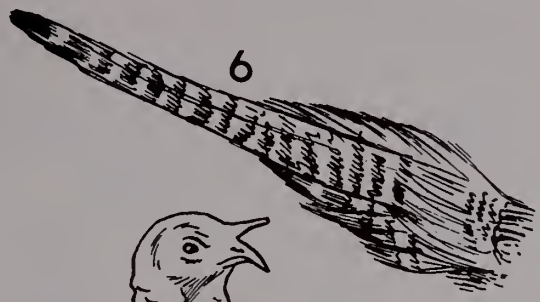


6

7

1. striped head of bobwhite
2. grouse with collar ruffed
3. pheasant
4. grouse's snowshoes
5. male turkey's spurs
6. pheasant's tail
7. bearded turkey

Virginia's Non-Migratory Game Birds

COMMON NAME	FIELD MARKS OF IDENTIFICATION	SEX DIFFERENCES
Ruffed Grouse	Size of bantam hen; mottled brown feathers Collar of feathers Crest of feathers Fan-shaped tail—wide, black band near tip	Very little; tail band generally broken on female and solid on male.
Bobwhite	Small, chunky, reddish-brown bird with a white throat and white strip over eye and a dark grayish tail. Averages 10 inches in length and 7 ounces in weight.	Female has a buffy head and neck.
Wild Turkey	Average weight 20 lbs. Streamlined in form. Plumage has a metallic iridescence of many colors. Red wattles during gobbling season and a long hank of hair called a beard.	Female does not have wattles or caruncles but often times a beard. Hens do not have spurs.
Pheasant	Average weight 1½-2½ lbs. Head iridescent green. Body plumage coppery-brown. Gaudish looking. Long, tapering tail.	Female mottled brown. Can be distinguished from grouse by long tail feathers.

excellent example of streamlining. The domestic turkey is heavier bodied and has white (not cinnamon-brown) tail tips. The flat-headed bird has practically no forehead and very large eyes. Fleshy appendages on the male's head are called wattles and caruncles. These turn bright red during gobbling season. Turkeys' bills are short and stout.

The body plumage of the wild turkey has a metallic iridescence which is lacking in its barnyard cousin. At different angles in the sunlight, its feathers may reflect shades of red, bronze, blue, purple, green, and brown.

We speak of the turkey as a bearded bird. A hank of hair protrudes beyond the breast feathers. Gobblers with beards over eight inches long are likely to be three or more years old. Its wings are short, arched, strong and move rapidly with a whirring noise in flight.

When leaving the ground, the bird takes a few fast running steps, a couple of hops and is airborne. While in flight, the feet are extended beneath the tail and the neck is fully stretched forward. When lighting on the ground, the turkey throws its feet forward, stands on its tail in the air, and "back pedals" with its wings. The tail is fully spread as a brake. When it touches the ground, the speed is only partly checked so that the bird must run rapidly for several yards before it comes to a full stop.

The feet and legs of the wild bird are normally some shade of pink. In the domestic bird the feet and legs are black or dark red. With strong blunt claws the turkey scratches the ground. His rear toe is small and elevated. Turkeys are excellent runners. They like to strut, but they are shy and wary and seek protective covering in forests.

In late March the old tom turkey will want a harem, but he does not go out chasing hens. Instead Tom establishes a gobbling spot and calls the hens to him. An old gobbler make will usually end up with a harem of five or six hens. At first, the hens may spend a large part of the day with their master. As egg laying begins, they spend less time with him and finally try to avoid him altogether. Once he is deserted, he calls to them repeatedly for a week or two, trying to coax them back. His efforts are in vain, and he finally joins other lonesome gobblers.

PHEASANT—The pheasant is a native of Asia. While the ringnecked race has been established for many years in the Midwest, the first successful pheasant introduction in Virginia took place in 1958. The bird becoming established here is a cross between the Imperial Valley Chinese ringneck and the Iranian blackneck.

Propagated from wild stock at the state game farm, more than 10,000 have been released at 16 locations in Virginia, and the birds have spread so that they are now found in at least 25 Virginia counties. The pheasant is a wild bird but one which tolerates human activities.

The blackneck pheasant weighs 1½-2½ pounds and resembles the ringneck except that the cock lacks the characteristic white neck ring. (Cock of the blackneck-ringneck crosses often have a narrow white ring, however.) Its head is iridescent green, and its body plumage coppery brown. The hen is brownish but can be distinguished from a grouse by its long, tapering tail.

The cock pheasants generally take off at a 45° angle, whereas the hens soar out in a straight line.

In the spring the cock stakes his claim to a patch of land as his territory. In the center of this area he establishes a crowing stand. Here he stretches his neck, flaps his wings, and crows, attracting a number of hens and establishing a harem. The cock has nothing to do with building the nest or incubation. However, he does remain in the area and often mixes with the hens and their chicks until fall, when he takes leave of the hens and young and joins the company of other cocks.

Suggested Activities

1. DRUMMING GROUSE: One way to recognize a bird is by its activities. By far the most intricate and spectacular courtship demonstration by any of our native birds is staged by the ruffed grouse. It does three things—drums, struts, and makes like a locomotive. It isn't too difficult to sneak up on one in late March through early May when he is looking for a mate.

In the early morning or late afternoon go look for him. First, you will hear the drum—thump-thump-thump it goes at half-second intervals, then faster and faster until the thumps sound blurred. The whole thing is over in less than 10 seconds. He may repeat this throbbing love song immediately or at varying intervals. Often it is difficult to locate the drummer's stand, which may be a log or boulder. You will find it is usually an old log of considerable size and generally somewhat mossy and decayed. The sound is of a quality that has great carrying power in the amount of noise actually produced. Chances are you'll find the grouse less than a few hundred yards from you. Move only when he is drumming. Keep hidden and very quiet.

You'll see the bird beginning to strut but soon he flattens his feathers, sidles around a moment, then settles back on his heels with head high and flattened tail braced on the log behind. Then, thump!

With elbows in, he throws his wings, with rigid feathers stretched out like fingers, up, and back and down again in a single, baffling motion. This is so fast that the sound is produced by the concussion of the wings upon the air alone—like the crack of a whip. The final flicks of the wings are so fast they are blurred to the eye, just like the buzzing wings of a hummingbird.

Now if he is lucky enough to attract a hen grouse, she will light on the log beside him. He will hop from the log and stiffly fan his tail upward. His great neck ruff fluffs out encircling his high-held head. His wings droop, and he slowly approaches her. He becomes greatly excited and furiously pecks the ground. Then all of a sudden he stops.

You have just witnessed two phases of the courtship activity—the drumming and the strutting. Not too much is known about this third phase—the locomotive.

The male stands before the hen, neck lowered and thrust forward, ruff loose and partly extended, tail fanned. Suddenly he pivots his head from one side to the other, bill pointing forward. Faster and faster he rotates his head with a loud hiss like a puffing locomotive getting under way. Then abruptly the headshaking stops and with a prolonged hiss he makes a short rush at the hen. Usually, the lady grouse will sit there and take it all in and never bat an eye.

(Adapted from article by Clayt Seagers. *The New York Conservationist*, April-May 1955.)

Ask your state game warden the location of a good place to see a grouse drum. You may find a log that has been used by generation after generation of drummers with a low spot where countless performances have worn away several inches of crumbling wood. These logs can further be identified by heaps of droppings.

2. BE A DETECTIVE: See how many different signs of game birds you can find, such as tracts, feathers, nests, dusting spots. Try to piece together the interesting stories that these signs tell.

Some Reference Materials

"Descriptions and Life Histories of Virginia's Game Birds," *Virginia Wildlife, XXI* (May, 1960). Reprint C-2.

McDowell, Robert D. *Productivity of the Wild Turkey in Virginia.* Richmond: Commission of Game and Inland Fisheries, 1956. (44-pg. booklet).

Tuttle, Herman J. "Virginia's Foreign Game Introduction Program—A Progress Report," *Virginia Wildlife, XXIII* (February, 1962).

This 16-mm motion picture is available from the game commission: Feathered Bombshells (life history of ruffed grouse); sound, color, 11 minutes.

NEXT MONTH: Migratory Game Bird Identification.

Bird of the Month:

The Hudsonian Curlew

By DR. J. J. MURRAY
Lexington, Virginia

ONE of the finest sounds of the coast country is the call of the curlews. "Cur-le-euw, cur-le-euw, cur-le-euw," calls the long-billed curlew, and "kiu, kiu, kiu kiu." more like a yellowlegs, sounds the Hudsonian curlew, both calling as they pass high overhead with the surf thundering below.

These two curlews visit our Virginia coast. A third species, the Eskimo curlew, smallest of the three and until recently thought to be extinct, probably stopped with us in the last century. The only evidence we have for the little Eskimo curlew is that Captain Crumb of the Coast Guard reported that in the 1880's it was a rare and irregular visitor to Cobb Island. His report is trustworthy enough for me, as Captain Crumb was known to be not only a keen hunter but a good observer who knew his birds.

The largest of the curlews, the long-billed, is now a rare bird anywhere on the Middle Atlantic coast. although it is seen fairly often from South Carolina to Florida. We have recent reports at Back Bay and at the National Airport near Arlington. I have never been fortunate enough to see one in Virginia but last winter saw them at Cape Canaveral and on the Texas Gulf Coast. It is a large and handsome bird, the most striking feature of which is its sickle-shaped bill, six inches long.

The Hudsonian curlew is still common at places on the Virginia coast. In the most recent bird books it is usually called by its British name, the whimbrel, since the British and American birds belong to slightly different races of the same species. It is very common in fall and spring on the Eastern Shore and common around Back Bay. It has also been reported at Alexandria, Danville, and Blacksburg. Once much scarcer in Virginia than the other two curlews, it is now the common one, while of the others one has disappeared and the second is almost absent from our coast.

The persistence of the Hudsonian curlew is probably due to two things: its isolated nesting range, and its very great timidity when migrating through settled country. It breeds on the far northern coasts. from the mouth of the Yukon in Alaska around the coast to the Mackenzie River delta on the Arctic Ocean and northern Manitoba on Hudson Bay. It winters in northeastern South America and from lower California to Chile.

The Hudsonian curlew is a large bird. some 17 inches or more from tip of bill to end of tail. It is thus half again as large as a lesser yellowlegs. It is pale brownish in color, with dark and light stripes on the head. The down-curved bill is three or four inches long. The legs are bluish gray.

Its call is a series of four whistles, usually short notes but sometimes lengthened into a trill. Its favorite food and easily found is the little fiddler crab. Once a very popular form of game, hunting of this as of so many migratory shorebirds is no longer permitted.

Edited by DOROTHY ALLEN

Nature Campers Express Their Feelings

One evening the campers at the Virginia Federation of Garden Clubs, Inc., Nature Camp near Vesuvius were asked to write what camp had meant to them. Following are two of the campers' reports:

"Nature Camp, to me, is one of the best things that could ever happen to the young people of America. It helps the next generation of the rulers of America to become concerned about the beauty of this land God so graciously gave us. It gives us young people a great feeling of responsibility to uphold and maintain conservation practices which will become more important in the years to come, for the population of the United States will expand and the natural habitat will decrease. Also, Nature Camp will give us a chance to increase our knowledge in the different fields of science, which is also very important for the future generation of adults. Lastly, Nature Camp, with its purity of well-meaning, will bring us all closer in the sight of God, the Creator of Nature."

—Pat Pritchett
8th Grade

NATURE CAMP

Nature Camp is my ideal,
My favorite place to be.
I love its mountains round about
They mean so much to me.

To be at Nature Camp,
Is really lots of fun—
There are classes and recreation
Beneath God's wonderful sun.

To see a flower while in bloom,
To hear a bird sing loud—
Presents a feeling great inside
Which makes me feel so proud.

To think that I'm a part of this;
This world beyond compare;
This place that means so much to me
For all this, do I care.

The Educational Building suits me fine;
The L. S. gives me glee;
To see a camp so fine and clean
Sure helps me spiritually.

I've never had such fun galore,
The food is certainly fine;
The staffhouse or bunkhouse
Presents a certain kind.

Because I feel at home here,
At home with Nature near;
I love to start anew each year
And meet it with no fear.

John Griffin, 7th Grade

If you would like to attend this camp, write to Mrs. Fred Schilling, Executive Director, Box 148, Route 2, Afton, Va.

Daily Progress Photo

Ronnie Hoadley, a Nelson County teenager, shows off his prize catch—a five-pound bass—caught in a stream near Charlottesville.

Evening Star Photo

Six-year-old Mark Anderson of Winchester and the 5½-pound bass, measuring 21½ inches, he landed from Walton pond at Winchester.

John Paul Jones, Jr., 8, of Covington, with a 2¼-pound trout he caught in Cedar Creek near Hot Springs, Va.

Claude Rogers Photo

Michael Burleson, 5, of Kiptopeke, caught this six-pound Virginia citation flounder at the Kiptopeke breakwater, using squid for bait.

H. H. Pittman, Jr., game warden, Lancaster County, instruction at the Alexandria City Police Boys Camp at Kilmarnock. Pittman showed the boys a beaver dam and explained the habits of the beaver.

Edited by HARRY GILLAM

Misch Photo Center

1962 Virginia Civilian Rifle Team members: (top, l. to r.) P. E. Valentini, B. A. Rollins, G. C. Selfridge (Arlington), L. S. Cook (Hampton), C. L. Bramell (Arlington); (middle row) J. W. Courtney, Jr., G. H. Geron—jr. affiliate (West Point), J. D. Lubin (Fairfax), R. H. Hosfield—jr. affiliate (West Point), E. D. Andrus (Alexandria); (bottom) L. E. Whitehouse (Hampton), Capt. O. A. Finley, U.S.N. ret. (Alexandria)—coach and member Virginia Civilian Gold Team, J. C. Murray (Hampton).

"Water must be cold this time of year!"

Virginia Marksmen Receive Awards

On August 26 the Virginia Civilian Rifle Team selected by the Virginia State Rifle & Revolver Association returned from the Small Arms Firing School and the High Power Rifle National Matches held at Camp Perry, Ohio. The following awards were made to individual match competitors: President's Match—S. Cook, third junior (142-6v's); Coast Guard Trophy Match—S. Cook, second junior (99-12v's); Scott Trophy Match—J. W. Courtney, III, second junior (100-3v's); Crowell Trophy Match—P. Valentini, fifth Master (100-11v's), C. L. Bramell, fourth Marksman (97-9v's); Navy Cup Match—E. D. Andrus, fourth Sharpshooter (95-5v's); National Trophy Individual Match—Bert A. Rollins, leg toward Distinguished Rifleman (241-12v's), L. E. Whitehouse and G. C. Selfridge, bronze medals for finishing in upper 10 percent of civilian competitors (237-15v's and 237-12v's respectively).

The Virginia Gold Team of S. Cook and J. W. Courtney, III, won ninth place medals in the two-man junior team match at 200 and 300 yards with 371-13v's. In the six-man team matches the Virginia Civilian Team (J. W. Courtney, Jr., captain, E. D. Andrus, J. C. Murray, J. D. Lubin, G. H. Geron, and C. L. Bramell) won first sharpshooter team awards in the Herrick Trophy Match at 1000 yards with 501-26v's and first sharpshooter team awards in the Rumbold Trophy Team Match at 600 yards with 547-31v's.

Book Reviews

Tackle Talk and Trout, a 16-page booklet just published on trout fishing, includes information on how to catch, care for, and cook trout found in U. S. waters. Included are some life history notes on the most important species and tips on tackle, bait and techniques. The final portion of the book includes selected recipes. Written primarily from the standpoint of "trout farm" fishing, the booklet is available for 50¢ from the Virginia Trout Co., Inc., Monterey, Virginia.

The 1962 edition of Don Fuelsch's *Southern Angler's and Hunter's Guide* includes "how to" as well as "where to" sections. The book sells for 50¢ and is available at magazine stands, sporting goods dealers, or from Southern Anglers Guide, P. O. Box 117, Albert Pike Station, Hot Springs National Park, Arkansas.

U. S. Department of the Interior Photos

Virginia's Senator A. Willis Robertson (center in all three photos, above) was honored by conservationists in Washington, D. C., on August 7, 1962, for his role in sponsoring the "Federal Aid to Wildlife Restoration Act," usually referred to as the Pittman-Robertson Act. Before several hundred representatives of state, Federal and private conservation organizations, Sen. Robertson was presented with an award from the Department of the Interior (by Assistant Secretary Frank P. Briggs, at left) and a scroll dedicating a Virginia wildlife area to him (by Virginia Game Commission Director Chester Phelps, center).

Edited by JIM KERRICK

Courtesy Motorboat Examination

As a courtesy to pleasure boat owners and operators, members of the Coast Guard Auxiliary each year check thousands of boats for both legal and safety requirements. These members are qualified as Courtesy Examiners under strict standards set by the Coast Guard and recognized as experts in their field. These examinations are performed as a courtesy and only upon request of the pleasure boat owner. To pass the examination, vessels must satisfy not only the legal requirements but also certain additional safety requirements prescribed by the Auxiliary. Those craft passed by the Examiner are awarded a safety decal which should be displayed conspicuously on the vessel. The award of the decal signifies that the vessel is safe, seaworthy, and in full compliance with the law. Regular Coast Guard boarding parties will ordinarily refrain from boarding boats displaying this decal unless some violation of the law is apparent.

In addition to the requirements for the decal award, the Auxiliary also suggests you outfit your boat with the following equipment for your own safety, convenience and peace of mind: anchors (one light, one heavy), anchor chain or lines (ample in length), bilge pumps, boat hook, compass, course protractor or parallel rules, deviation table, distress signals, (flares, smoke signals, water dye markers, signalling mirror, flashlight), dividers, emergency rations, emergency drinking water, first-aid kit and manual, light list, lead line (for taking soundings), local Coast and Geodetic charts, mooring lines, motor oil and grease, ring buoys, R.P.M. table, spare parts (condenser, coil spark plugs, distributor head, distributor rotor, distributor points, fuel pump repair kit, fuses, light bulbs) and tools.

Penalty for Negligent Operation

(Motorboat Act of 1940)

Sec. 14. Any person who shall operate any motorboat or any vessel in a reckless

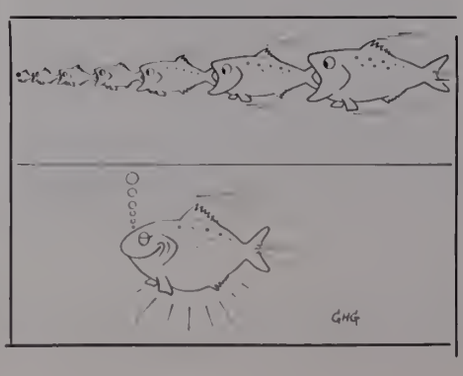
or negligent manner so as to endanger the life, limb, or property of any person shall be deemed guilty of a misdemeanor and on conviction thereof by any court of competent jurisdiction shall be punished by a fine not exceeding $2,000, or by imprisonment for a term of not exceeding one year, or by both such fine and imprisonment, at the discretion of the court.

(Operating a boat while intoxicated, speeding through anchorages and close proximity of swimmers are examples of reckless operation.)

Penalty for Other Violations of Act

(Motorboat Act of 1940 as amended)

Sec. 16. If any motorboat or vessel subject to any of the provisions of this Act is operated or navigated in violation of this Act, (lack of safety devices such as Coast Guard approved life jackets, fire extingnishers, lights and other required equipment) or any regulation issued thereunder, the owner or operator, either one or both of them, shall, in addition to any other penalty prescribed by law than that contained in section 14 of this Act, be liable to a penalty of $100.00.



On Boating Safety

Davy Jones will claim your bones,
If you don't use your head.
A seaworthy craft, not any old raft,
Then there is no dread.

Have equipment complete when you join the fleet;
You'll come back with a happy tale.
Know your motor and your boat,
And the waters where you will sail.

A check-off list before you start
Will make for a bonny cruise.
Tune up the motor, overhaul the boat,
And leave at home the booze.

Cogitate and ventilate
Before you press the starter.
Or "bang" she'll go, and sirens blow,
And you're a fool—not martyr.

Use your chart right from the start.
And you'll not go aground.
The buoys—they tell you where to go—
By color, shape, and sound.

Adhere to the "Rules of the Nautical Road";
Always have foresight.
Be prepared for emergency;
Don't get caught in a bight.

Heed the tides, and watch the glass;
Keep center of gravity low.
Be safety-conscious and ever alert
For the unexpected blow.

Keep small children in life jackets;
Have jackets or cushions for all.
Do not overload your boat, men;
And "Sailor, stay on the ball."

Learn the "Do's" and Don'ts," my friend;
Good seamanship is your vocation.
So be nautically wise, all of you guys,
And have a wonderful water vacation.

—T.S. Pattison, Jr., Commander, USCG

LETTERS

BEING a native of Wythe County makes reading this wonderful magazine a double pleasure each month for me. Keep up the good work. Many thanks for what you are doing for the conservation of natural resources and wildlife in the Old Dominion.

Charles G. Hudson
Logan, West Virginia

I think VIRGINIA WILDLIFE is the best of such magazines extant.

Edgar S. Krug, M. D.
State College, Pennsylvania

WHILE serving my time in Oklahoma in Uncle Sam's army, everyday routine had made me feel very despondent and homesick for "Old Virginny." One lonely Sunday I sat down and wrote this short essay. After I had finished writing, I felt much better.

"The air was tingling cold against my warm body as I stepped out of the car. As I closed the door, I glanced to the eastern horizon to see the sun rising from its nocturnal slumber and watched as its rays reached across the heavens to reveal the clouds in their array of color. The leaves on the ground were glistening from the heavy frost of the cold night. As I started down the road towards my favorite woods, I paused to listen to the early morning sounds, the sounds of Nature awakening to meet the new day. In the distance I could hear the steady humming of a farmer's tractor making its way over the frozen earth. A crow was slowly winging his way across the clear sky, his black body glistening in the morning sun. As he flew over me, he suddenly flared away, screaming his vengeance at the intruder who dared trespass on his domain. His call echoed through the forest and then died away. The birds were just awakening, for their melodious notes were beginning to fill the crisp autumn air.

"I stepped off the road onto an old corn field, brown stalks reflecting light from the frost and sun. I stopped to listen. A cool chilling breeze was beginning to blow across the field, moving the stalks in a ghostly manner. The woods lay ahead of me: giant oaks gray and bleak, sentinels in the autumn sky. As I walked beneath their towering limbs, I was impressed, as always, by their size and age. These giants among trees are hundreds of years old. Here before any white man ever thought of a New Land, they grew undisturbed, and only shadows gliding across the forest floor were their intruders. Its beauty is surpassed only by the gentle stream that slowly makes its path underneath the giant limbs. If only this tree coud talk! What things has it seen? What animals have used its sheltering branches for a haven? In your world of trials and tribulations everyday routine seems to be our master. When monotonus routine and all of the world seems to be against you, you cry out for an escape. Here under the same sheltering limbs you can find the answer to every problem. In this world you can find your escape. Here is solitude from the outside. There's peace here; here in this world."

Odell Hancock, Jr.
Danville, Virginia

Forest Fire

Sparked by the calloused carelessness of man's
Deserted campfire or tossed cigarette,
Hell's counterpart on earth bursts forth and fans,
Zig-zags and hurtles, and continues yet;
Leaps higher, wilder, straddles field and wood,
The natural gully or the man-made road;
Sweeps in its wake all earthly things which stood—
Great trees or dwellings, tiny chipmunk, toad—
That could not flee the roaring appetite
Which spread fumed blackness with its killing light.
Giants that harbored in their sheltering shade
The Noble Red Man, deer, or rooting boar,
Which once a haven for God's creatures made,
Stand charred or toppled, or exist no more;
A century of nature perished here:
Forest and countryside for miles around
Seethe lifeless, naked, smouldering and sere—
Mere haunted land that once was hunting ground;
A steaming forge of man-made haplessness,
Repeated scourge of human carelessness.

—Guy G. Germano

"He wants to negotiate."

CONGRATS on the excellent front cover photo on the August issue of VIRGINIA WILDLIFE! My compliments to Messrs. Terhune and Boldridge. Their two letters have more good sense than many others I have read.

With our booming population, we are getting too many "game hogs" in this sport of hunting. I place the blame at two areas: (a) inadequate punishment in the courts, (b) not enough poachers, game hogs, are caught.

I have tramped the woods in Giles, Montgomery, Highland, Bath, Augusta, Buckingham, Albemarle and Louisa counties and have yet to see a game warden, park ranger or any such official back in the woods. All that I've seen are auto bugs.

I know it's impossible to have somebody watching all hunters. Sportsmanship is the participant's responsibility. Nonetheless, to get the wardens back where violations occur would certainly bring a different attitude to the hunters. That attitude really has far-flung effect; it permeates a mass through conversations if through no other medium.

One game law violation is so widespread that it leaves me wondering—shooting more than the dove limit! I have seen one man kill 40 doves in an afternoon. That's a plain hog! It seems no dove fields are ever checked by the wardens and there seems to be an absence of any charges for these violations.

It's poor for game laws that the technical knowledge of the Commission and the legislation of county supervisors cannot be more cooperative. I would like to see buckshot outlawed on all big game. Its use by the average hunter is a sickening experience of wounding and no retrieve.

The Virginia laws covering rifles for big game would seem to have been written before gunpowder was discovered, what with the hole-in-the-barrel measure of a rifle's power. Soon a new varmint caliber will hit the market chambered in rifles and pistols—cal. 256. It will be legal for deer, however designed for squirrels and chucks. And, pistols(with several times the power of this pipsqueak in a rifle) are not legal weapons on big game! Calibers such as the .44 Magnum, .44 Special, .45 Long Colt, .357 Maggie, and others have it all over some of these *allowed* weapons as well as being far superior to *all* of the bows and arrows, which are legal and have a special season, too! Sickening, sickening!

What about the combination shotgun-rifles? Which are they? Can I hunt deer in Louisa County with my "drilling" and buckshot, with rifle barrel empty? I don't want the court's decision and costs to find the answers!

I would like to see some wardens in the dove fields and in the woods, especially the first week. Very few kill three deer and four turkeys from the public highway and they can hear the cars coming, anyway.

Thanks for a most excellent magazine, and I'm sorry your hands are tied on these laws.

Henry C. Page, Jr.
Life Member NRA
North Garden, Virginia

The fact that today's hunters seldom stray far from roads tends to keep wardens concentrated in this area also. Deer hunting is permitted in Louisa County with shotgun only, using buckshot. Buying or borrowing a plain shotgun would be a wise move.—Ed.

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